

Metal Windows and Doors

Catalog E

Stremel Bros. Mfg. Co.

Minneapolis, Minn.

STANDARD FIREPROOF WINDOWS AND DOORS

LABELED AND APPROVED BY THE UNDERWRITERS' LABORATORIES.



Stremel Bros. Manufacturing Co.

260 Plymouth Ave. N.W.
~~1300—1324—No. 3rd St.~~

Minneapolis, Minn.

SHEET METAL PRODUCTS.

Why Stremel Standard Fireproof Windows and Doors Should be Specified

Fires communicate from one building, or from one part of building to another, through unprotected window and door openings.

In order to reduce your insurance rate, fires must be confined to the areas in which they originate and proper allowance is made therefor by the Insurance Underwriters, providing that such protection is properly constructed and if Standard windows, doors and hardware, such as the Underwriters approve are used.

OUR STANDARD DOORS AND WINDOWS
ARE APPROVED AND BEAR THE UNDER-
WRITERS LABEL.

Underwriters having jurisdiction in your territory should be consulted and with their co-operation as to fireproofing, better results may be obtained.

Stremel Standard Gravity Tin-Clad Sliding Door

UNDERWRITERS' LABELED

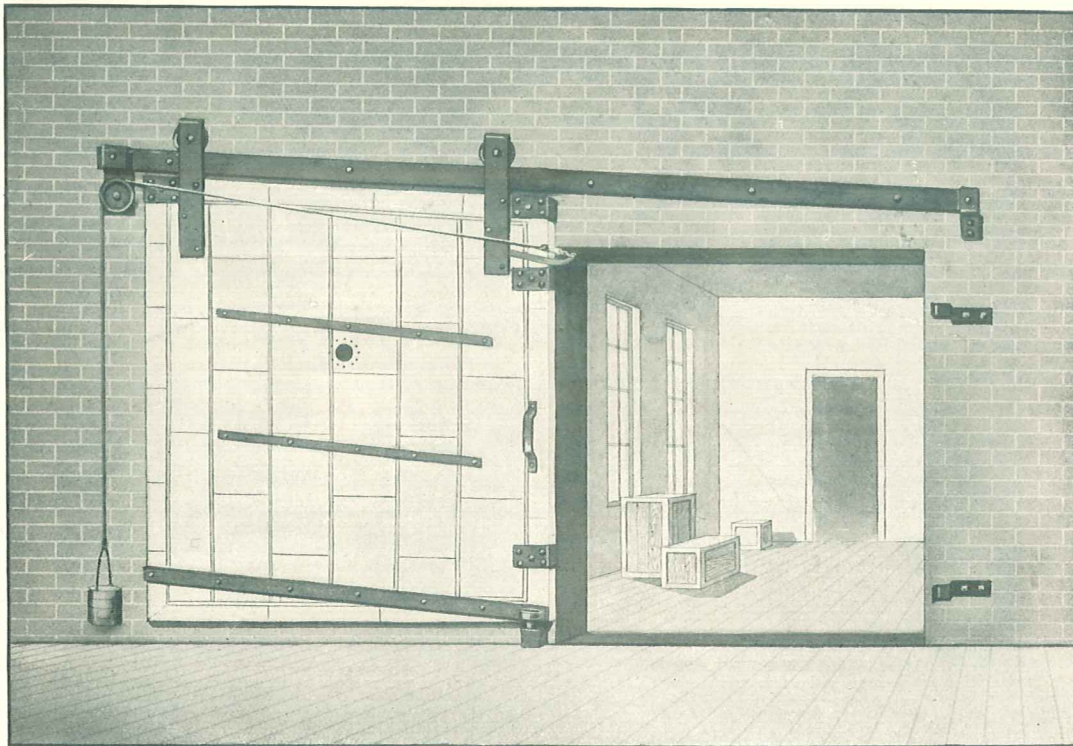


Fig. 116.

Standard gravity sliding doors as above illustrated can be made to slide either to right or left and are automatic closing in case of fire, as the slightest opening exposes the fusible link to heat. This type of door rises $\frac{3}{4}$

inch from floor, for every foot of width of opening.

We furnish all approved hardware, track, etc., shipped separately with full instructions for mounting or erecting.

See directions for measuring, page 17.

Stremel Standard Counter-Balanced Drop Track Tin-Clad Sliding Door

UNDERWRITERS' LABELED

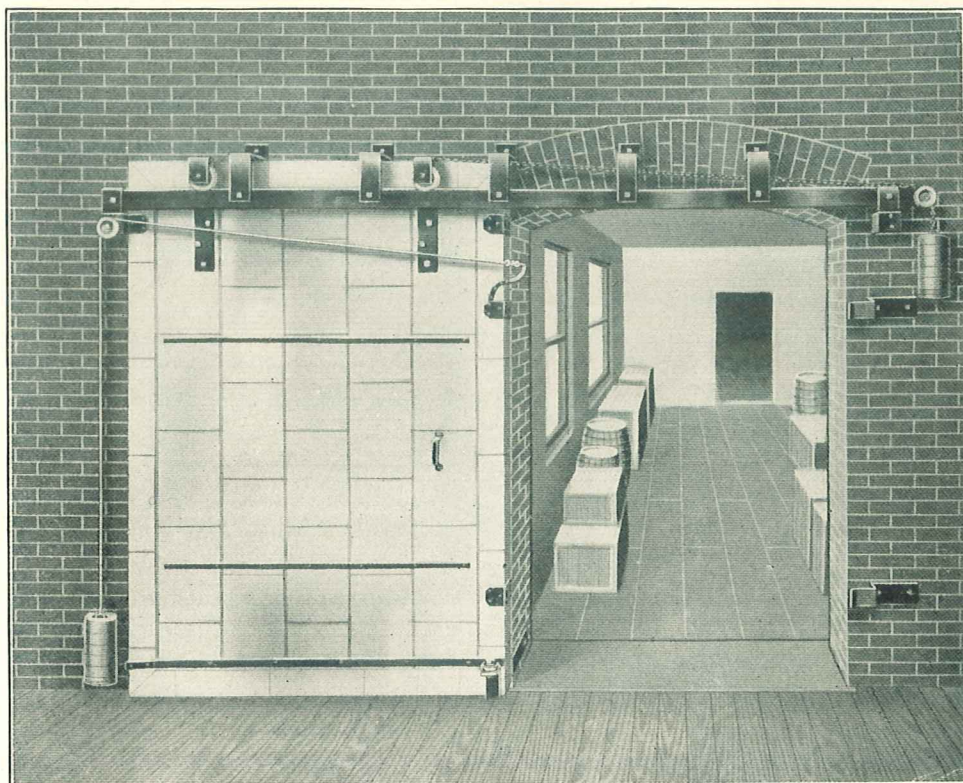


Fig. 117B.

This type of door and fixtures are especially designed for openings having very little head room. The distance necessary for installation is 9" from top of opening to ceiling.

Arranged with fusible link, closes automatically in case of fire, all labeled and approved hardware furnished by us.

See directions for measuring, page 17.

Stremel Standard Counter-Balanced Tin-Clad Level Track Sliding Door

UNDERWRITERS' LABELED

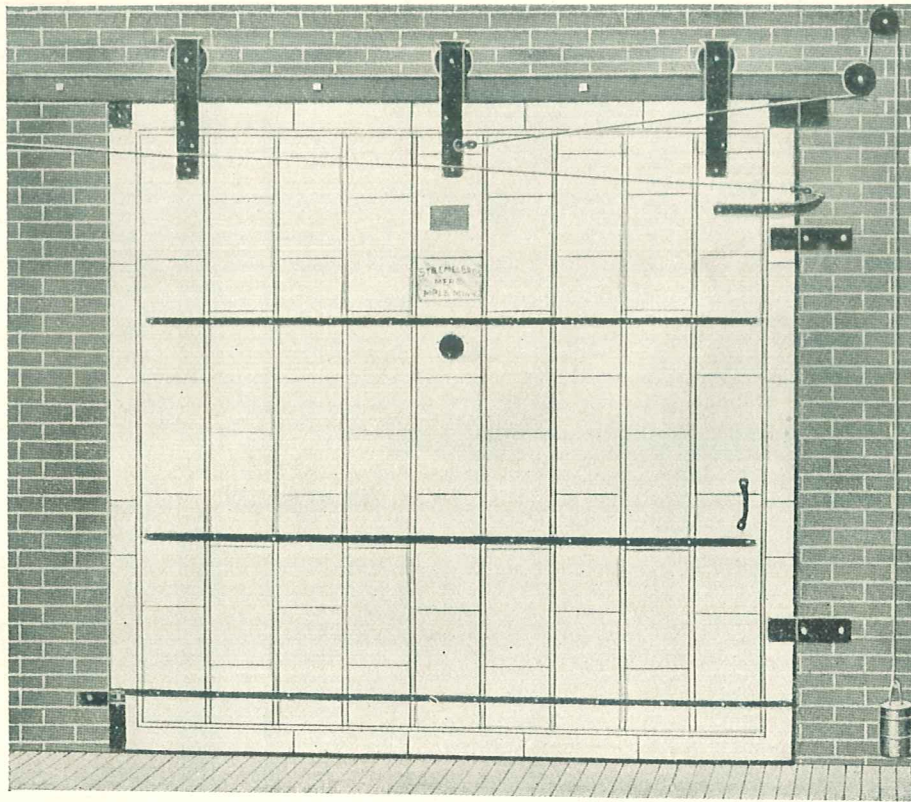


Fig. 117.

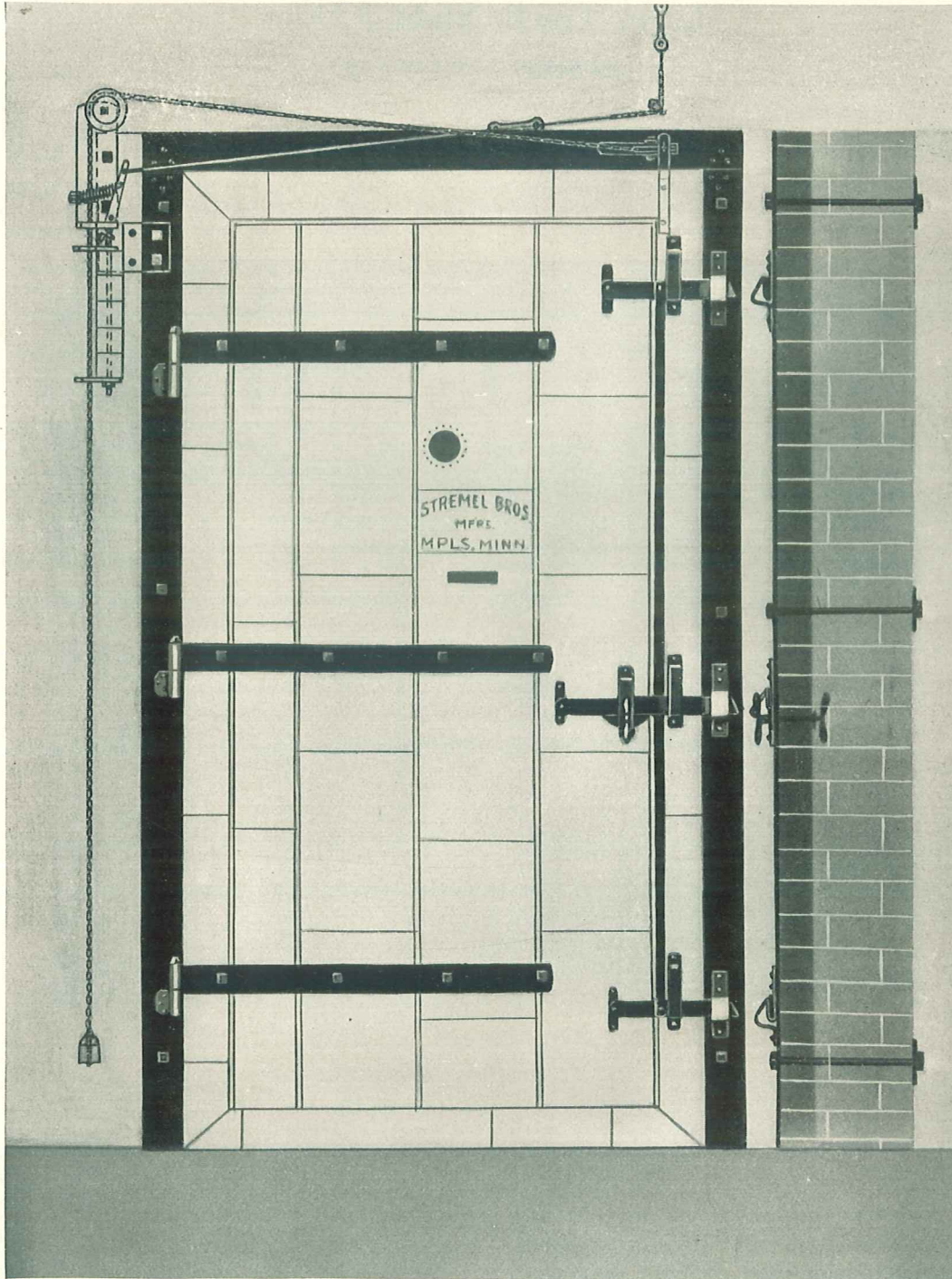
This cut shows door for opening having very little headroom, the amount required over the highest part of opening to ceiling being 14 inches. Arranged with fusible link and counter-weighted, making door close

automatically in case of fire. All labeled and approved hardware furnished by us.

We also make this type of door requiring less headroom. See 117B.

See directions for measuring, page 17.

Stremel Standard Tin-Clad Swing Door with Angle Iron Frame.
Automatic Closing Device



UNDERWRITERS' LABELED

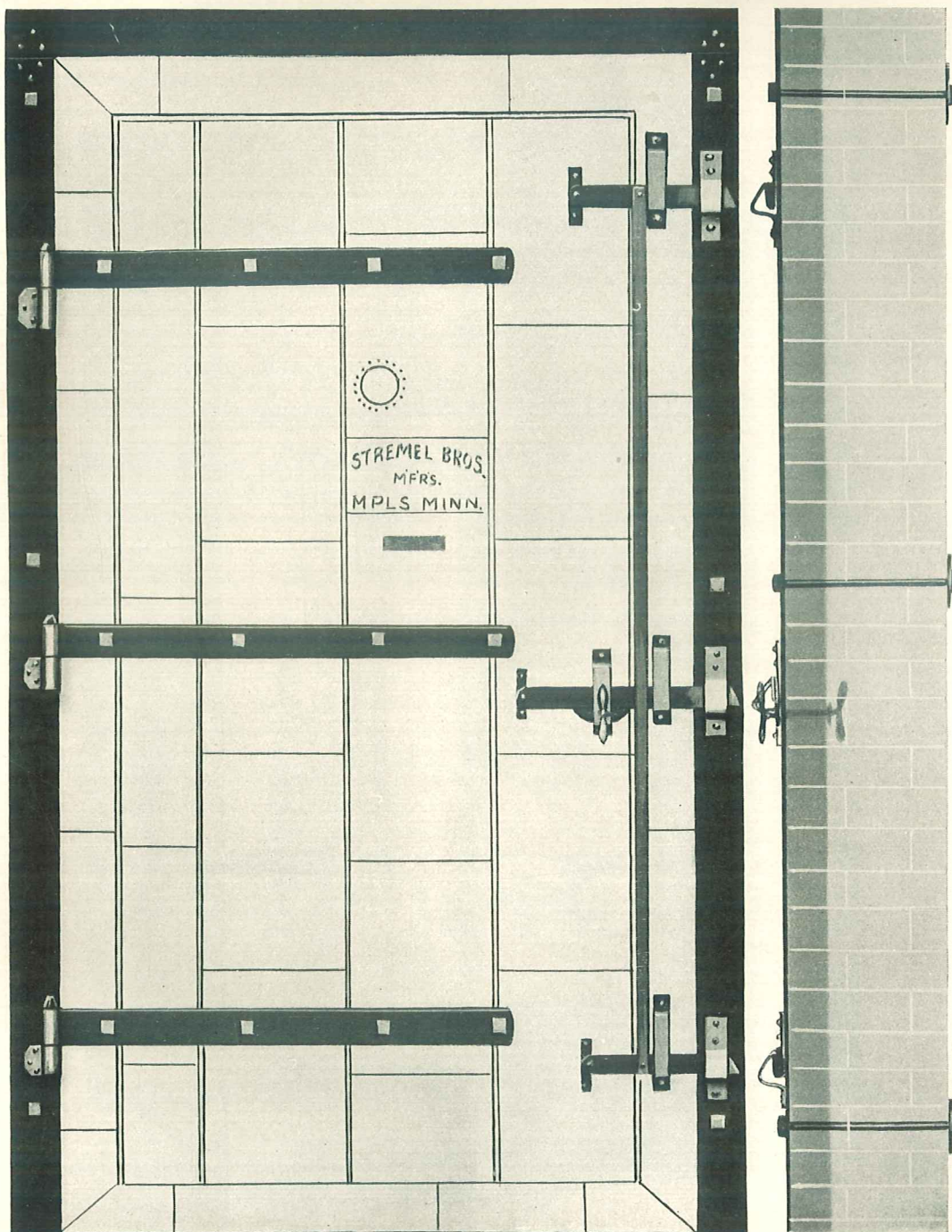
Fig. 119A.

This is the same as Fig. 119L with the application of our automatic closing device as approved by the Underwriters. By the application of this device the door can be left open in any position, can be opened and closed at will, and if left open will close automatically in case of fire. This device can also be applied to our Standard

Swing Lap Door without frame which is shown on page 14. In ordering always advise us if door is right or left hand (this cut shows LEFT HAND DOOR), state if with or without door frame and give opening size. We also furnish automatic closing device for swing doors in pairs.

See directions for measuring, page 17.

Stremel Standard Tin-Clad Swing Door, Angle Iron Frame



UNDERWRITERS' LABELED

Useful where door openings are made after wall has been erected. Door can be made to swing to right or to left. THIS CUT SHOWS LEFT HAND DOOR.

Fig. 119L.

Note particularly in ordering whether you wish right or left hand. The above door can also be furnished with a channel iron frame, useful for tile walls. Always state thickness of tile that is to be used.

See directions for measuring, page 17.

Stremel Standard Angle Iron Frame

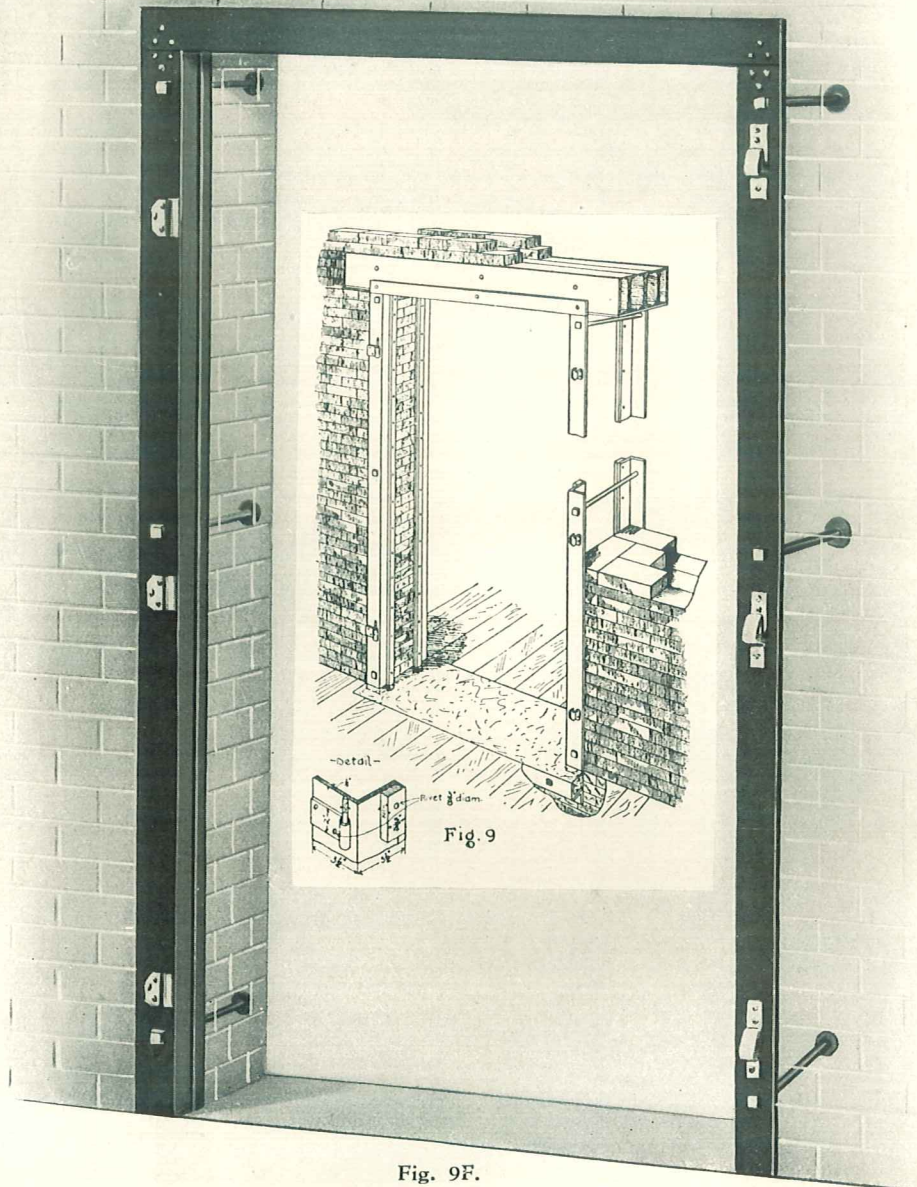


Fig. 9F.

Showing construction of our Angle Iron Frame as used for Fig. 119 and Fig. 119A. Where conditions will admit of its use, we

can furnish the angle iron frame across bottom. Fig. 9F. Illustrating angle iron frames placed on both sides of wall opening.

All Hardware used on frames bears Underwriters' label of approval.

Stremel Tin-Clad Pair Swing Doors

Stremel Bros. Standard Underwriters' Labeled Tin Clad Pair of Swing Doors With Steel Frame, Standard Underwriters' Hardware.

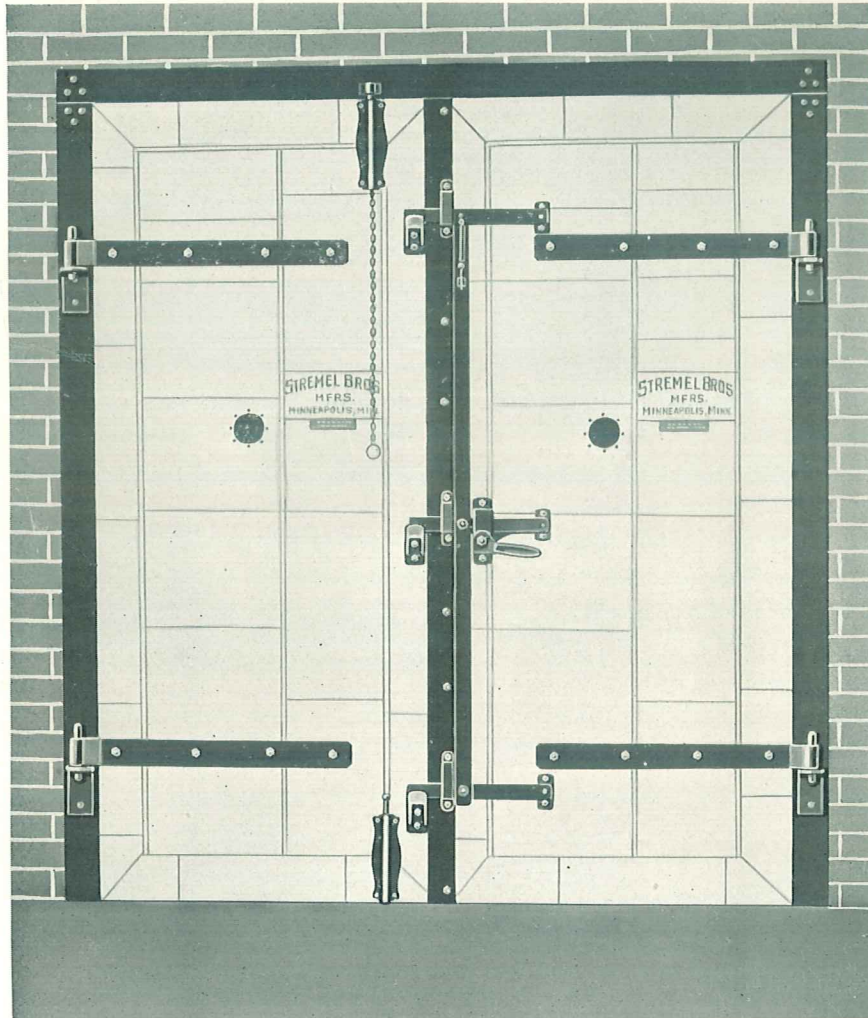


Fig. 219L

These doors can also be furnished with automatic closing devices, if desired.

Cut is door from the hinged side showing hinges, keepers, head and foot bolts, astragal strip, three point latch, and lever handle.

Stremel Freight Elevator Doors

Stremel Bros. Standard Tin Clad Underwriters' Labeled Counter Balanced Freight Elevator Doors

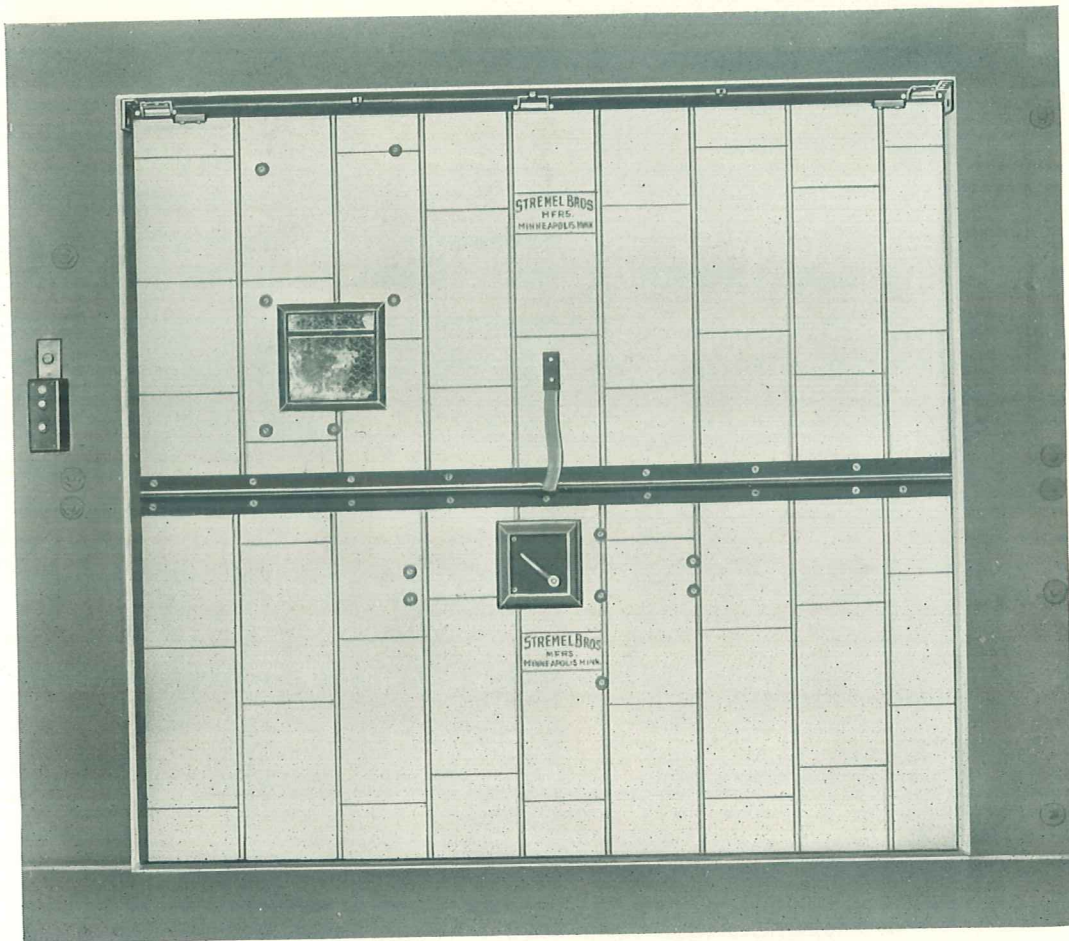


Fig. 440

These doors are furnished 2 ply tin clad, $1\frac{3}{4}$ " thick, with truck-over sill, lever latch, track, chains, sheaves and all necessary fixtures. Polished wire glass vision panels are furnished when required.

Cut shows elevation of door in closed position from room side showing polished wire

glass vision panel, pull strap and recessed latch for use with push button control elevators so that door may be opened from the room side when elevator car is at that floor.

Mechanical electric interlocks are furnished for use with push button elevators when required.

Quotations and details of construction furnished on request.

Stremel Freight Elevator Doors

Stremel Bros. Standard Tin Clad Underwriters' Labeled Counter Balanced Freight Elevator Doors.

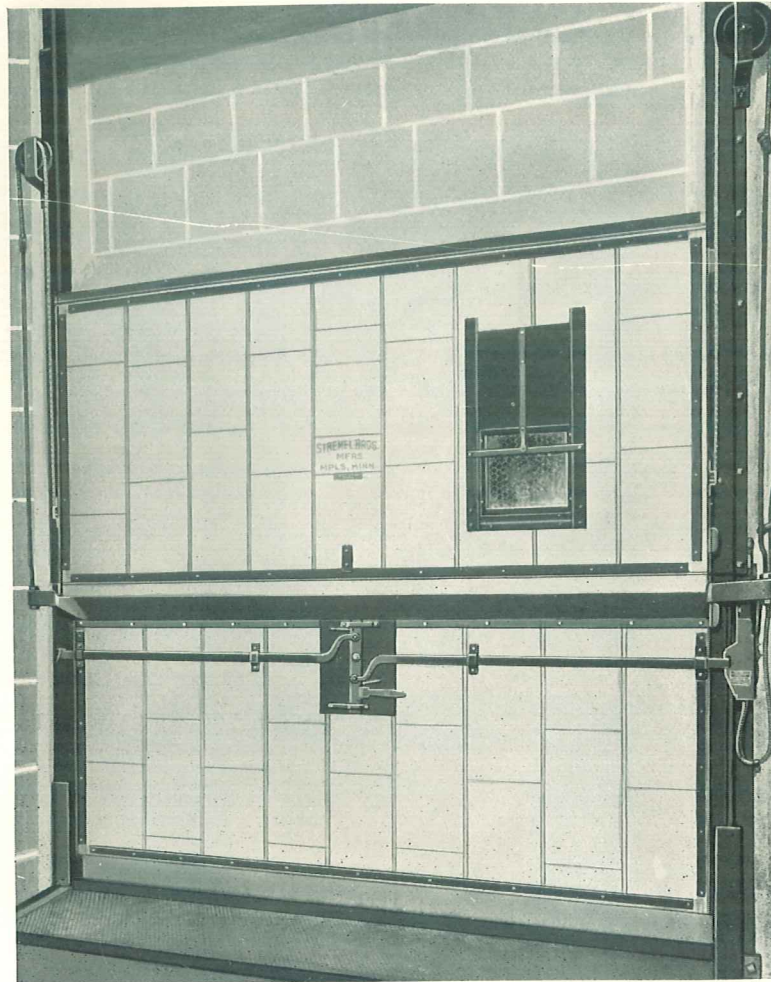


Fig. 440.

Cut shows elevation from car side showing inside of polished wire glass vision panel with automatic steel shutter, hanger bar, lever latch, track, sheave hanger rods, chain and interlock.

These doors can also be furnished flush or

paneled galvanized covered, or if a lighter door is desired they can be furnished in corrugated steel. Neither of these constructions would bear the Underwriters' label but both are a very satisfactory and serviceable type of construction where the label is not required.

Details and quotations of this construction on request.

Stremel Standard Tin-Clad Swing Shutters

UNDERWRITERS' LABELED

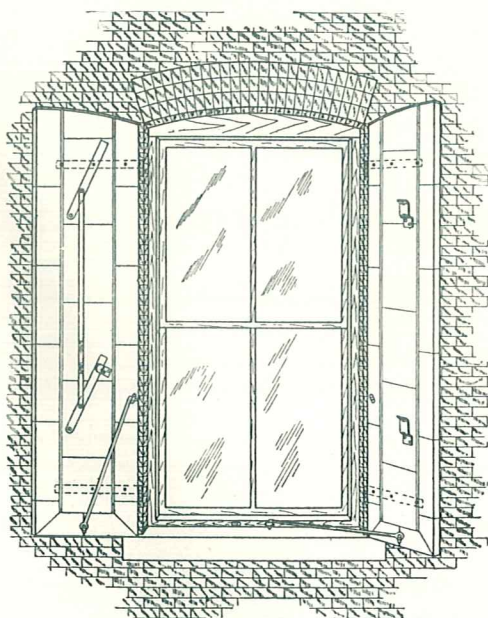


Fig. 38.

Showing two leaf tin-clad shutters, can be made one leaf or can be made sliding. Follow closely our instructions for measuring as outlined on page 35, measuring from extreme outside of brick opening or staff bead and from sill to crown of arch.

If swing shutters are used we must be advised if there is a brick reveal and the depth of same and state if wall eyes to receive hinge pins are in place in wall.

Shutters are also made of No. 14 plate steel reinforced with angle irons. Iron shutters are not labeled.

See directions for measuring, page 35.

Stremel Standard Tin-Clad Vertical Door

UNDERWRITERS' LABELED

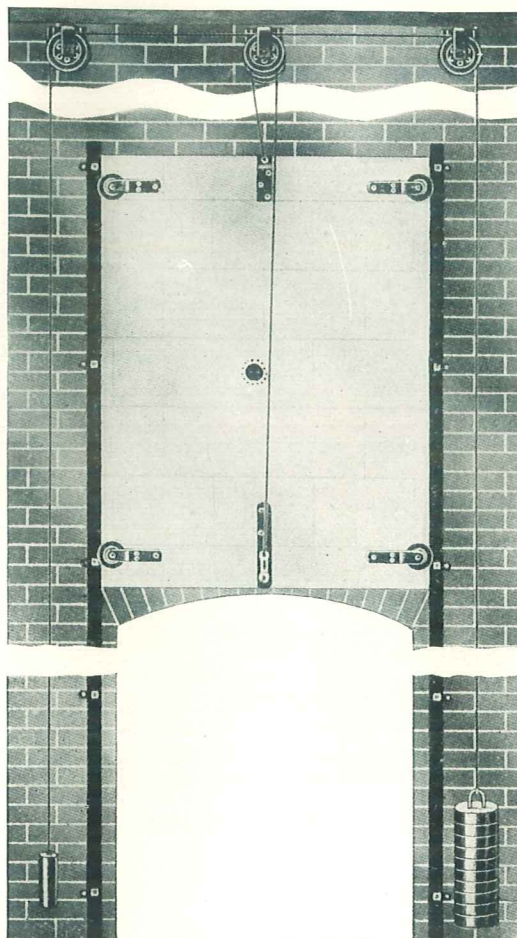


Fig. 121.

This door is designed for openings having plenty of headroom and is automatic closing in case of fire.

See directions for measuring, page 17.

Stremel Standard Trap Door

UNDERWRITERS' LABELED

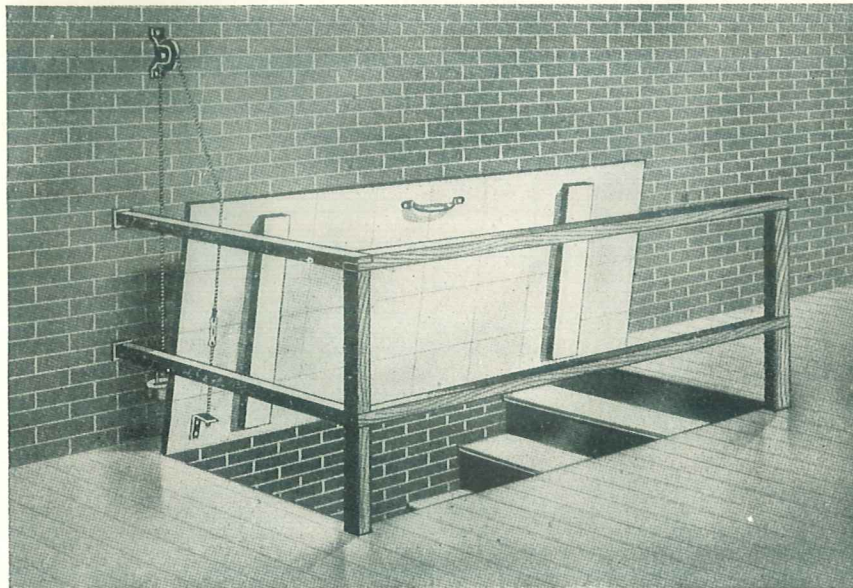


Fig. 122.

Showing trap door, when open the door is counter-balanced by weight, self-closing in case of fire.

When doors are extra heavy, we use a double pulley and an extra weight, as the link would not sustain the entire weight.

Stremel Standard Fire Door Sills

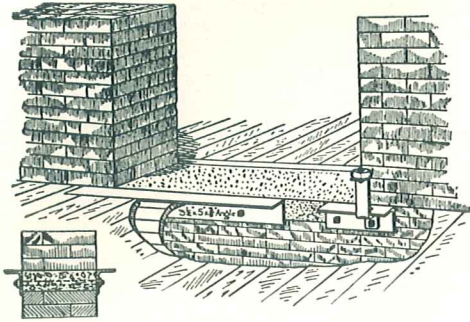


Fig. 1.
Angle Iron and Concrete Sill.

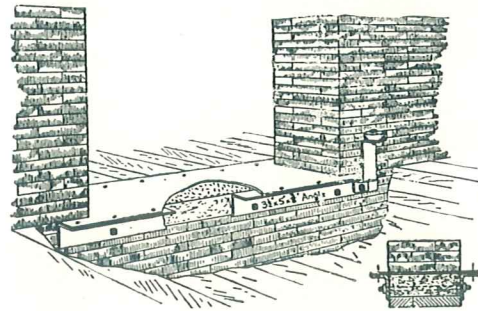


Fig. 2.
Angle Iron and Concrete Sill with Iron Plate on Top.

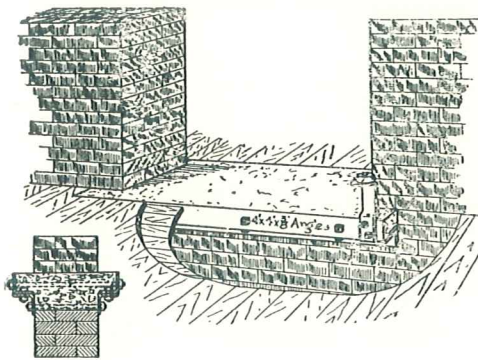


Fig. 5.
"Z" Bar and Concrete Sill.

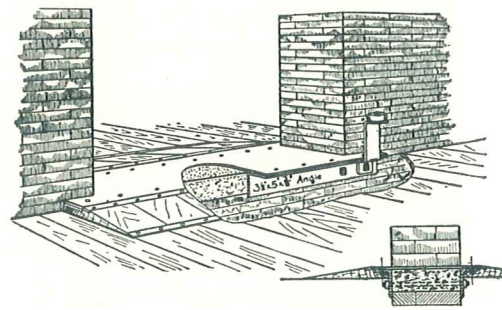


Fig. 7.
Raised Angle Iron and Concrete Sill, with Inclines.

Sills made of wrought steel in accordance with Underwriters' specifications.

Cuts show four different types, any one of which is correct and the style to use is the one

that is best adapted to your building.

The above cuts show sills for sliding doors, these same sills are applicable to any style of door upon the omission of the floor roller.

Stremel Standard Tin-Clad Swing Lap Door

UNDERWRITERS' LABELED

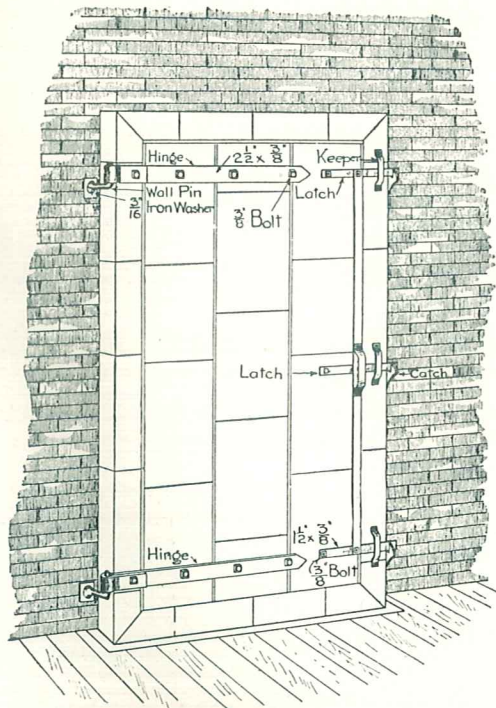


Fig. 36.

Swinging Door Without Rabbet in Wall.

This door is made to lap top of opening four inches and laps each side of opening four inches. Made to close automatically or non-automatic. This cut shows a left hand door, in ordering state if left or right hand door is desired, give thickness of wall, of what

material is wall and if for an old or for new wall. All labeled and approved hardware furnished by us.

Where conditions permit these doors are made to lap at bottom of opening 4".

See directions for measuring, page 17.

Stremel Standard Tin-Clad Sliding Door

REAR VIEW OF STANDARD TIN-CLAD SLIDING DOOR SHOWING
FIXTURES CORRECTLY APPLIED.

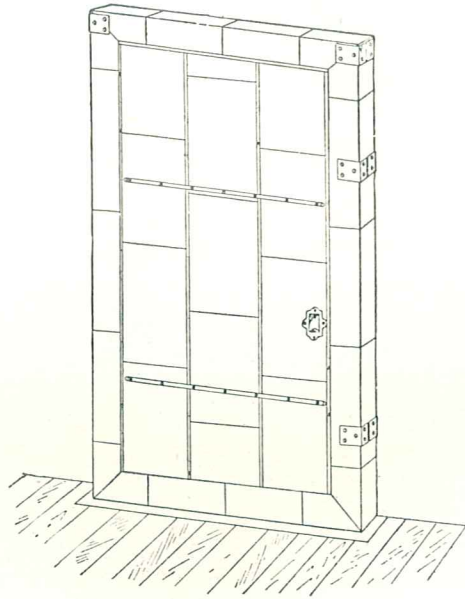


Fig. 30.

Rear View of Door with Trimmings.

With all our orders we furnish full directions for mounting and erecting, all in accordance with Underwriters' specifications.

Stremel Standard Tin-Clad Sliding Door

FRONT VIEW OF STANDARD TIN-CLAD SLIDING DOOR SHOWING
FIXTURES CORRECTLY APPLIED.

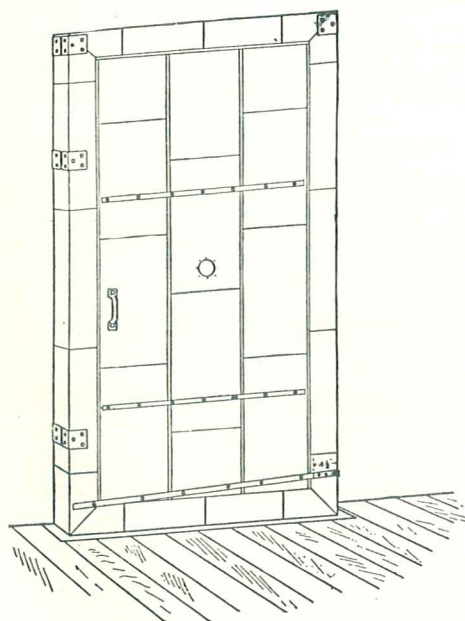


Fig. 31.
Front View of Door with Trimmings.

Illustrating front view of Standard Tin-clad sliding gravity door, showing the fixtures correctly applied. Cut shows the hole 3 or 4 inches in diameter (see foot note) cut only through the tin on the exposed side of door and tin secured by nailing around edges with small nails. Paint the exposed wood. If the entire door is painted, the Underwriters prefer a light color.

Note:—The hole will prevent bulging of the covering and rupture of the joints by permitting the escape of gases generated from the wood core when the door is exposed to fire. Care should be taken to ascertain which is the exposed side before cutting the hole in tin. The hole should be made after the door is mounted.

Three inch holes are used on doors under fifty square feet in area and four inch holes for doors more than fifty square feet.

Ruling of the Underwriters

The latest ruling of the Underwriters requires that each type of opening should have a distinctive label. Therefore in sending your inquiries or orders, we should be informed what openings the doors are intended for, viz:

EXTERIOR WALL OPENINGS.

PARTITION OR CORRIDOR OPENINGS.

INTERIOR FIRE WALL OPENINGS.

VERTICAL SHAFT OPENINGS. (Elevator.)

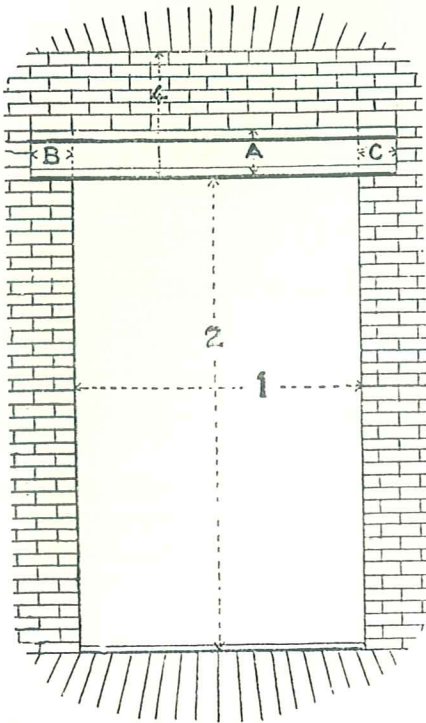
STAIRWAY OPENINGS.

In a great many instances a two ply door will be approved and if you inform us as to openings above it may be the means of reducing the price.

How to Measure Openings for Fire Doors

If lintel is protected by plaster or cement, same should be carefully noted.

Measures should not be taken with tape line, unless steel tape is used (ordinary tapes vary).
DO NOT SAY DOORS IF YOU MEAN OPENING SIZE.



Swing or Sliding Fire Doors.

Outline Level Top Opening.

The extra measurements on openings having lintels, as given herewith, should be carefully noted in ordering doors, so that same will be made to cover lintel properly. Of what material lintel—stone, I beam or channel iron?

Measurement "A" extreme outside measure of lintel showing its width.

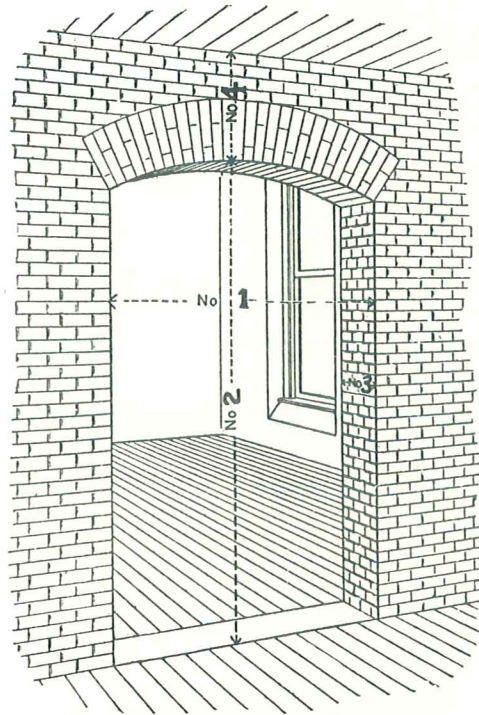
Measurement "B" showing lintel extension to left of opening facing the side on which door is hung.

Measurement "C" showing extension of lintel on right of opening.

If lintel varies in lap, state whether door slides to right or left in CLOSING.

If lintels are not protected by plaster, cement, or otherwise, be sure to note same, so that we can make door accordingly.

By carefully and accurately noting all measurements as above, much annoyance may be prevented, more satisfactory trimmings provided and there will be no delay necessary to verify your order.



Swing or Sliding Fire Doors.

Arch Top Opening.

The sketch above, showing opening in a fire wall, is marked and numbered for four measurements that are required to construct door and trimmings or trimmings only.

Measurement No. 1 is the full width of opening.

Measurement No. 2 is from the floor to the crown of the brick arch, the highest point of the doorway from the sill.

Measurement No. 3 is the thickness of the wall from outside to outside.

Measurement No. 4 is from the highest point of opening to ceiling and determines what is called the headroom, as clearance must be figured for the traveling of the hangers on the track at the incline of three-fourths of an inch to the foot.

Without this measurement the door might be constructed and would not work over the opening for which it is desired.

All sliding and lap swing doors are made to lap each side and top of opening four inches. In some instances lap is desired at bottom, if so, special mention should be made.

Stremel Steel Plate Door and Frame

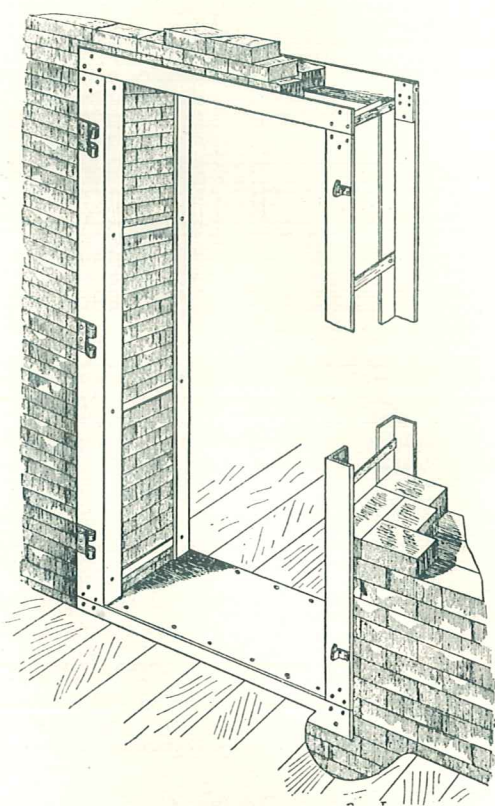


Fig. 41.
Angle Iron Wall Frames for Iron Doors.

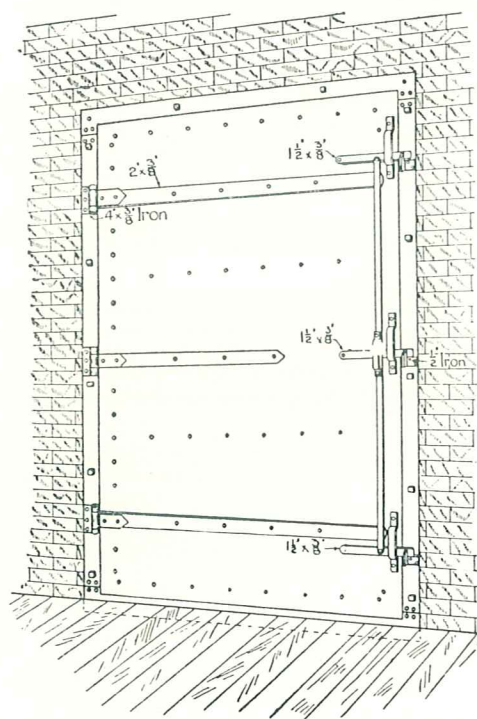


Fig. 47.
Swinging Iron Door, showing Hinges, Latches
and Catches.

Stremels Steel Plate Door of vault pattern, showing angle iron frame, used on openings not to exceed fifty square feet in area, larger doors require special treatment. Can be made for one or both sides of opening, each side

can be made of one swing door as shown in cut, or can be made two leaf, that is, made in pairs to open in center. The door as shown swings to left; be careful in ordering to state correctly which way the door shall swing.

These doors do not bear Underwriters' label.

Stremel Flush Metal Covered Door and Frame

Stremel Bros. Standard Flush Metal Covered Single Swing Door With Plain Metal Covered Frame Without Trim.

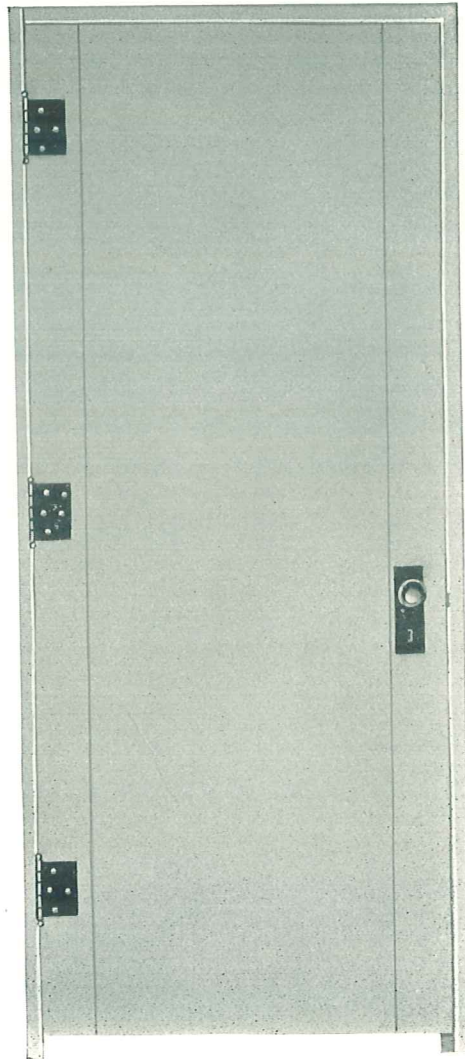


Fig. 15.

(Cut Shows Left Hand Door)

Showing standard installation of half surface butts and mortise lock set.

This door is very suitable for openings in residences to garage or boiler rooms and

openings in flat buildings where metal covered door not bearing the Underwriters' label is required.

This type of door can be furnished with panels or open for glass as required.

Stremels Pair Flush Metal Covered Door and Frame

Stremel Bros. Standard Flush Galvanized Covered Pair of Swing Doors With Plain Metal Covered Frame Without Trim.

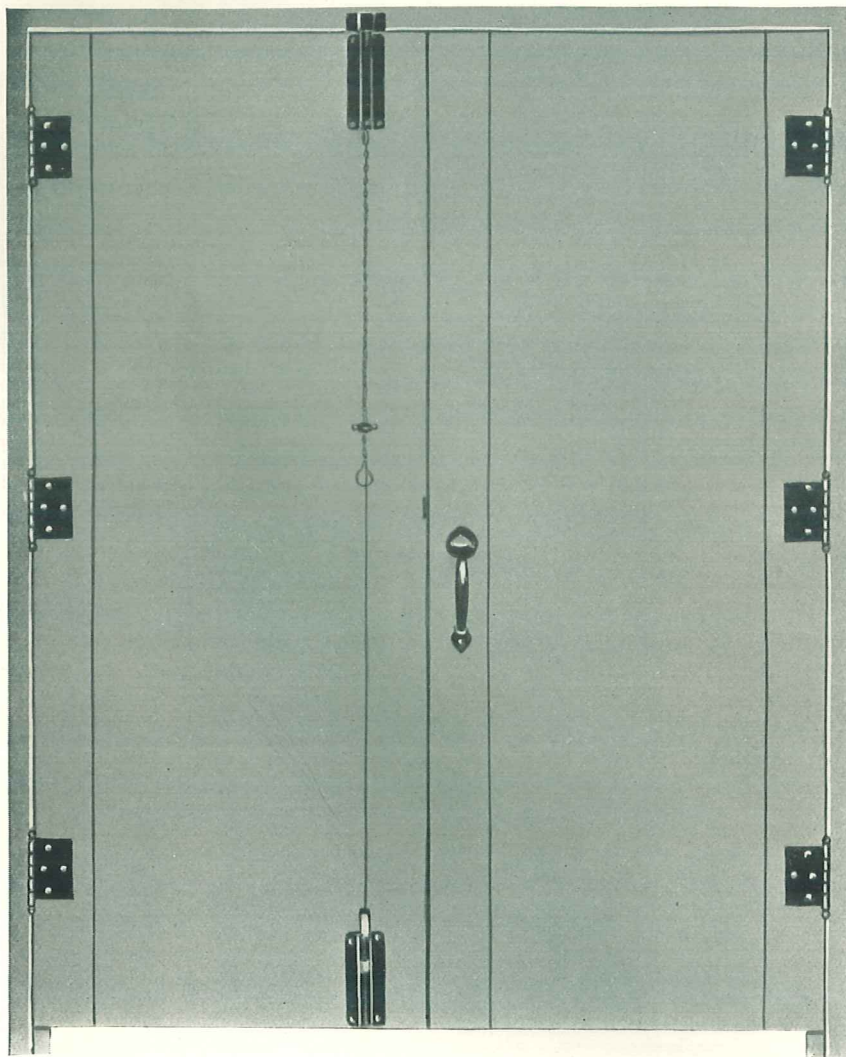


Fig. 14.

Showing standard installation of half surface butts, head and foot bolts and heavy thumb latch.

These doors are very suitable for installa-

tion where a metal covered door not bearing the Underwriters' label is required.

This type of door can be furnished with panels or open for glass as required.

Stremels Corrugated All Steel Galvanized Gravity Sliding Door

UNDERWRITERS' LABELED

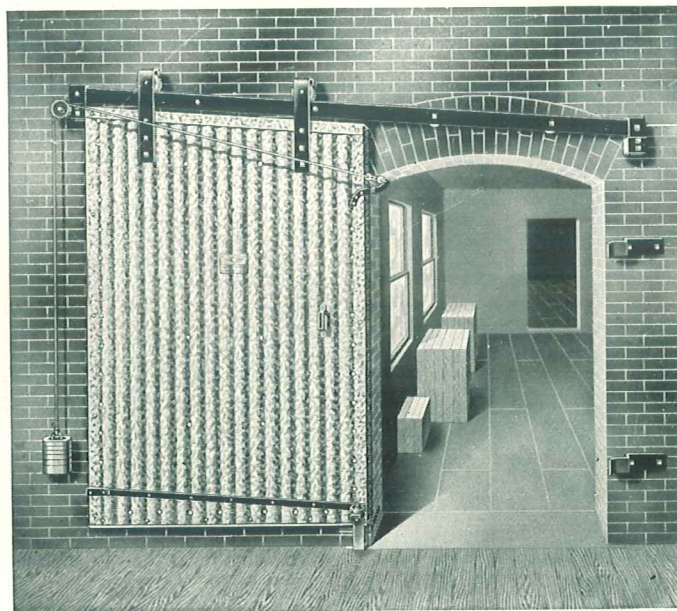


Fig. 406.

Automatic closing in case of fire, can be made to slide either to right or left, this cut shows left hand door. In ordering this type

of door be sure to state if right or left slide is desired.

We can furnish corrugated all steel doors single swing or swing in pairs with or without angle or channel iron frames. Automatic closing if desired.

Stremel Corrugated All Steel Counterbalanced Level Track Sliding Door

UNDERWRITERS' LABELED

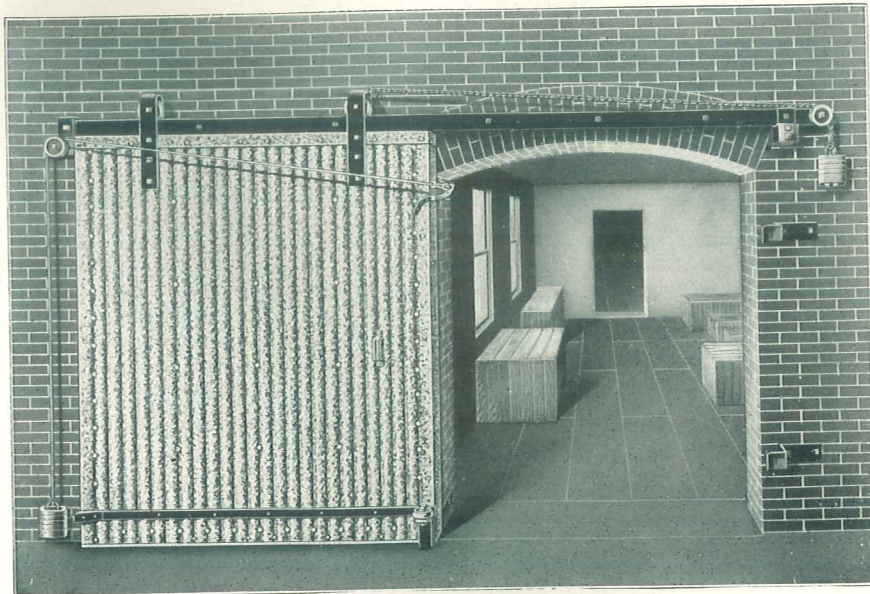


Fig. 407.

This cut shows door for opening having very little headroom, the amount over the highest part to ceiling being 14", arranged

with fusible link and counterweighted, making door close automatically in case of fire. Cut shows left hand door.

For openings having less than 14" of headroom, see Fig. 408.

Stremel Corrugated All Steel Counterbalanced Drop Track

UNDERWRITERS' LABELED

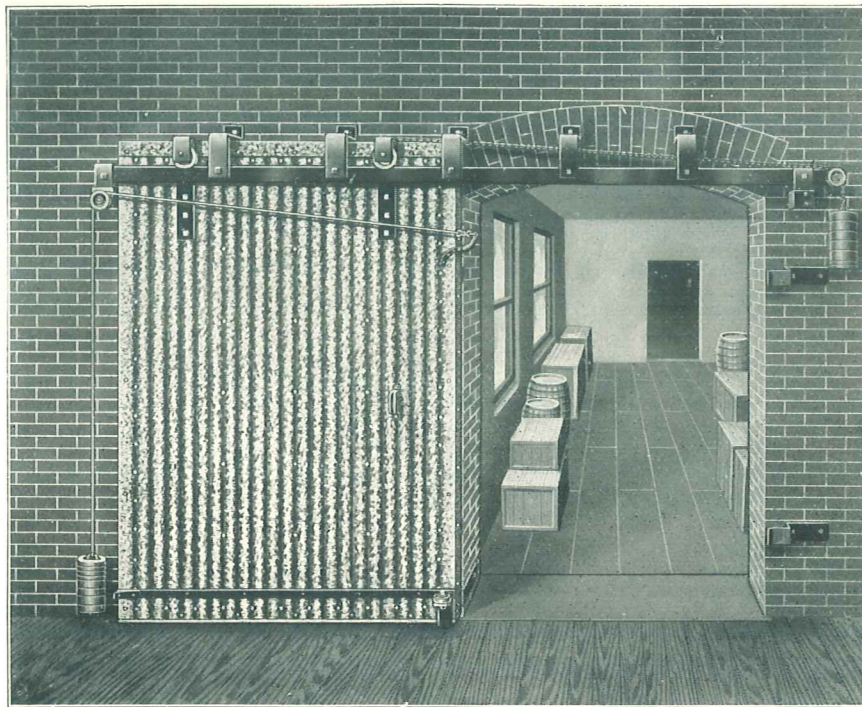


Fig. 408.

This type of door especially designed for openings having 9" or less of headroom from

top of opening to ceiling, arranged with fusible link to close automatically in case of fire.

Cut shows left hand door.

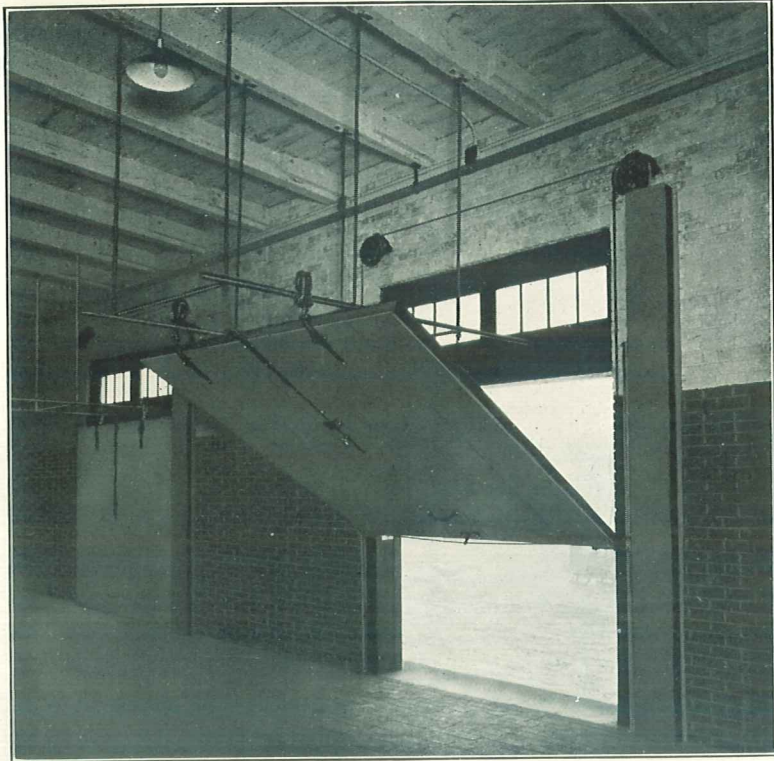
Stremel Horizontal Trolley Door

Street Front Openings:

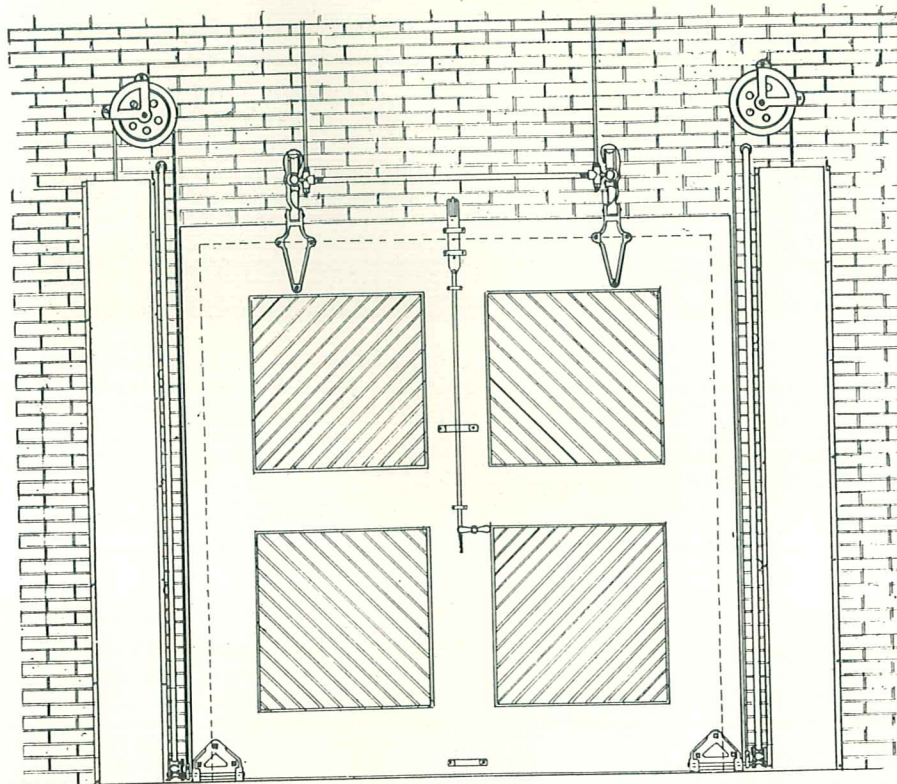
Doors are made of wood or wood covered with galvanized iron, manually operated.

These doors do not bear the Underwriters' label, which is unnecessary in street front openings.

Wicket doors (usually about 2'0"x6'0") can be placed in doors for these openings. Where desired we can furnish wicket doors flush at bottom to allow trucking.



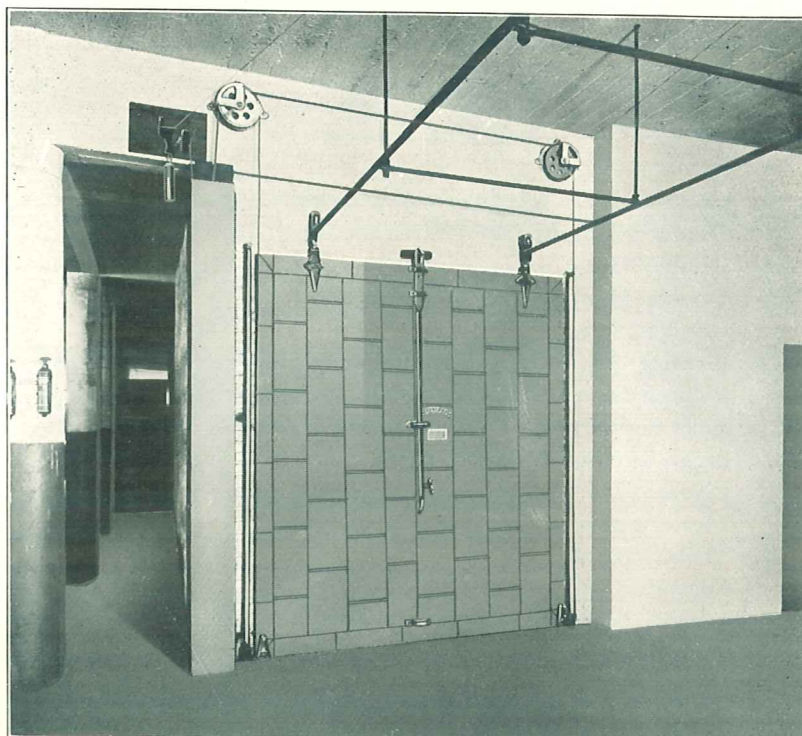
Showing Door Partly Open



No. 120.

Stremel Horizontal Trolley Door

UNDERWRITERS' LABELED



Showing Door No. 120 Erected on Freight Elevator Opening

For elevator shaft openings, garages, warehouses, etc.; especially adapted for openings having very little headroom, and for openings where swing or sliding doors cannot be used.

Specifications

**Elevator Shaft
and Partition
Wall Openings:**

Doors are made Underwriters' labeled two (2) ply tin-clad, manually operated and to close automatically in case of fire.

**Fire Wall Openings
—Hazardous Exposures:**

Doors are made Underwriters' labeled three (3) ply tin-clad, manually operated and to close automatically in case of fire.

Exterior Openings:

Doors are made Underwriters' labeled two (2) ply tin-clad, manually operated.

Stremel Standard Fire Proof Metal Windows

All windows of hollow metal and wire glass construction as approved by the Underwriters and bearing their label. Each window is inspected under the direction of the Underwriters'

Laboratories, Inc., and acceptable to the National Board of Fire Underwriters. Manufactured by us in the following types:

Double Hung Windows (sliding sash).
Double Hung Mullion Windows.
Double Hung Twin Windows.
Double Hung Windows with Stationary Transom.
Double Hung Windows with Top Hinged Transom.
Pivoted Upper Sash and Stationary Lower Sash.
Pivoted Lower Sash and Stationary Upper Sash.
Both Sash Pivoted.
Single Pivoted Sash.
Pivoted Twin Windows.
Multiple Pivoted Windows.
Twin Stationary Windows.
Stationary Windows.
Hinged Basement Windows, hinged at top to swing in.
Twin Hinged Windows.

We manufacture windows made of copper in any style, while not considered equal to the galvanized iron window from the insurance point as a fire retardent, they are approved in localities that are subject to unusually corrosive atmospheric conditions and where iron would rust out

rapidly, providing the exposure to fire is not extreme. Copper windows should not be used in elevator shafts, ventilating shafts, partitions or where liable to be subjected to intense internal fires.

Painting:—All our Standard Windows are painted inside and outside where windows come

in contact with walls, as specified by Underwriters.

Many destructive fires throughout the country have severely tested our Standard Fireproof Windows of entire hollow metal and wire glass construction and the attention of architects and property holders has frequently been called to their absolute reliability as a fire retardent. We beg to call your attention to the advantages of Standard Windows over Standard Shutters:

Windows can be closed in an instant, shutters require time and some strength.

Absolutely fireproof when properly constructed.

They are shut nine times, where shutters are closed once.

They admit light, shutters keep it out, thus giving access to your building at all times.

Metal sash never swell or warp and are sure to work in all changes of atmosphere.

Stremel Standard Double Hung Window

UNDERWRITERS' LABELED

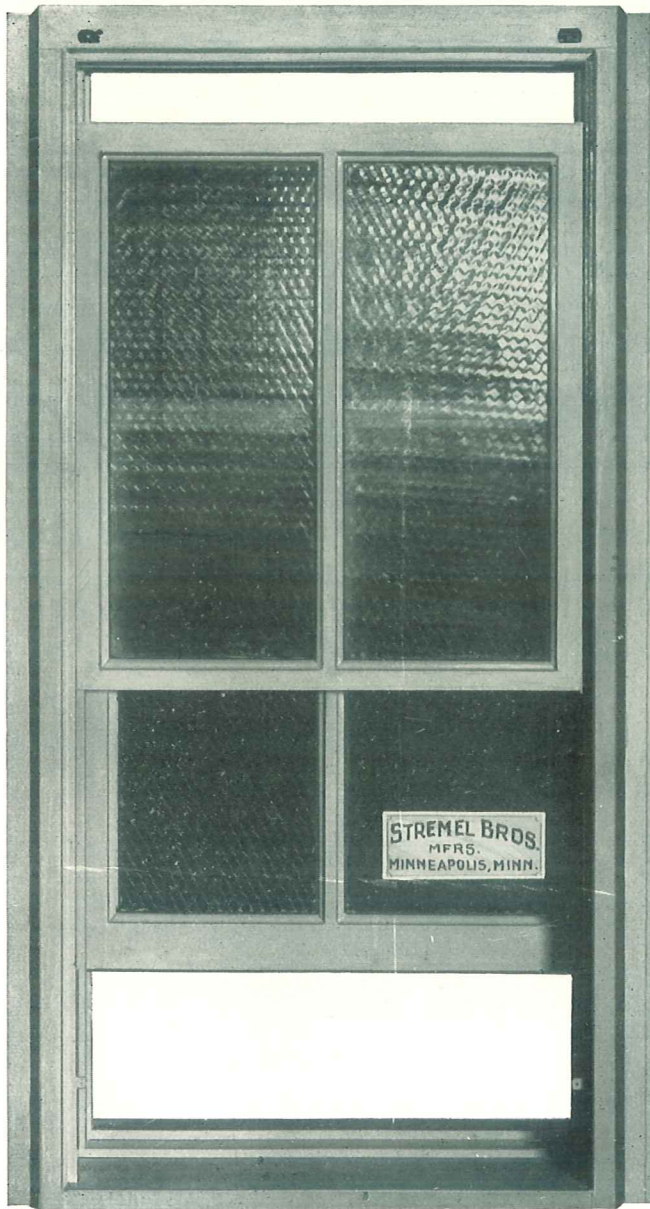


Fig. 22.

Showing our Standard Double hung or Box Frame Window, frame and sash made of No. 24 iron galvanized, riveted at all joints and soldered to make watertight. Provided with weather

guides and when glazed with wire glass are fire, dust and waterproof.

Made in either square or segmental heads and single as shown or in mullioned groups.

All our double hung windows are equipped with roller bearing overhead sash pulleys, storm sash hangers, sash locks and bar sash lifts. All attached by means of iron machine screws, screwed into threaded reinforcing plates. Hardware can easily be removed or replaced.

We provide galvanized sash chain and sash weights with each order.

These windows are generally glazed with $\frac{1}{4}$ " rib wire glass, although polished wire plate, maized wire or hammered wire glass can be used.

Underwriters will not approve of windows having more than 720 square inches of exposed area per light.

Instructions for measuring, page 35.

Stremel Standard Pivoted Window

UNDERWRITERS' LABELED

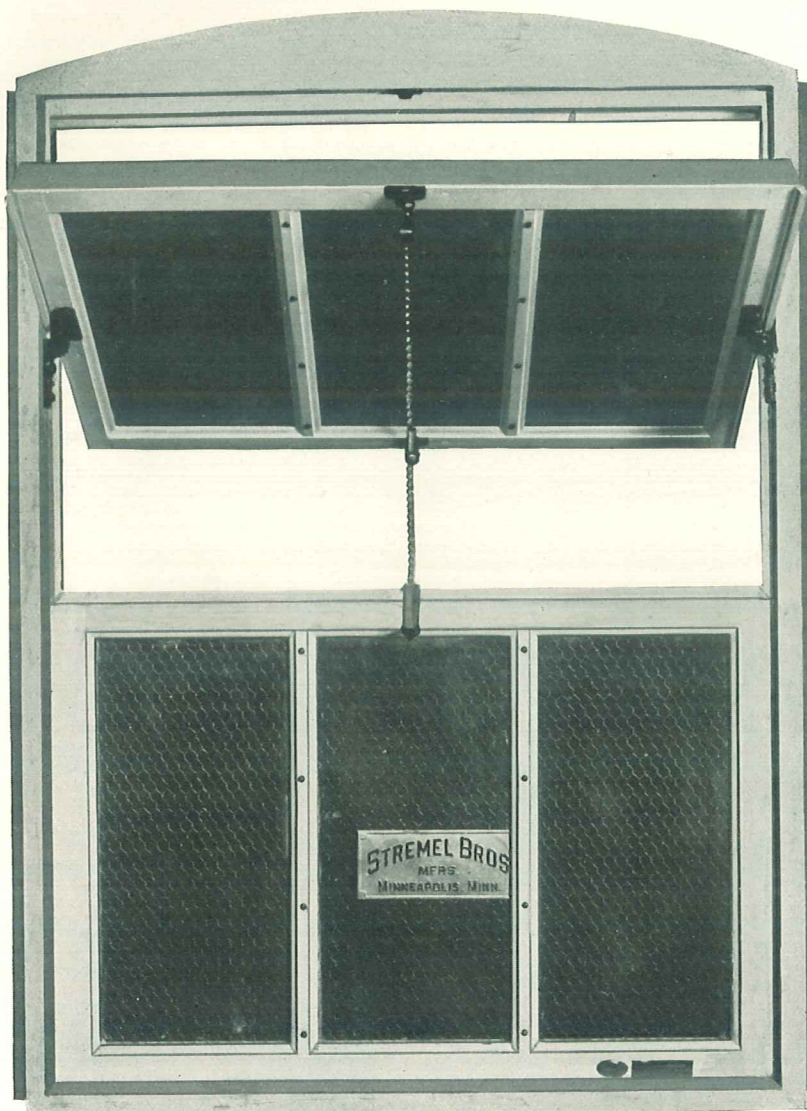


Fig. 21.

Standard pivoted window.

Showing upper sash pivoted and lower sash stationary; the pivoted is easily reversed from the inside to permit the cleaning of the weatherside of glass.

Can be made in either square or segmental head, single as shown or in mullioned groups. Shipped with all hardware applied, consisting of two sash locks, which lock automatically when window is closed and self-closing device.

Can be glazed with rib wire, hammered wire or polished wire glass. Insurance Underwriters will not

approve windows having more than 720 square inches of exposed area per light.

In ordering always state if windows are intended for new or old walls.

This type of window can also be made with top sash stationary and lower sash pivoted, or with both sash pivoted.

Made of No. 24 gauge iron galvanized throughout, joints well soldered and riveted and is considered the ideal window for factories and warehouses.

Directions for measuring window openings, page 35.

Stremel Standard Hinged Window

UNDERWRITERS' LABELED

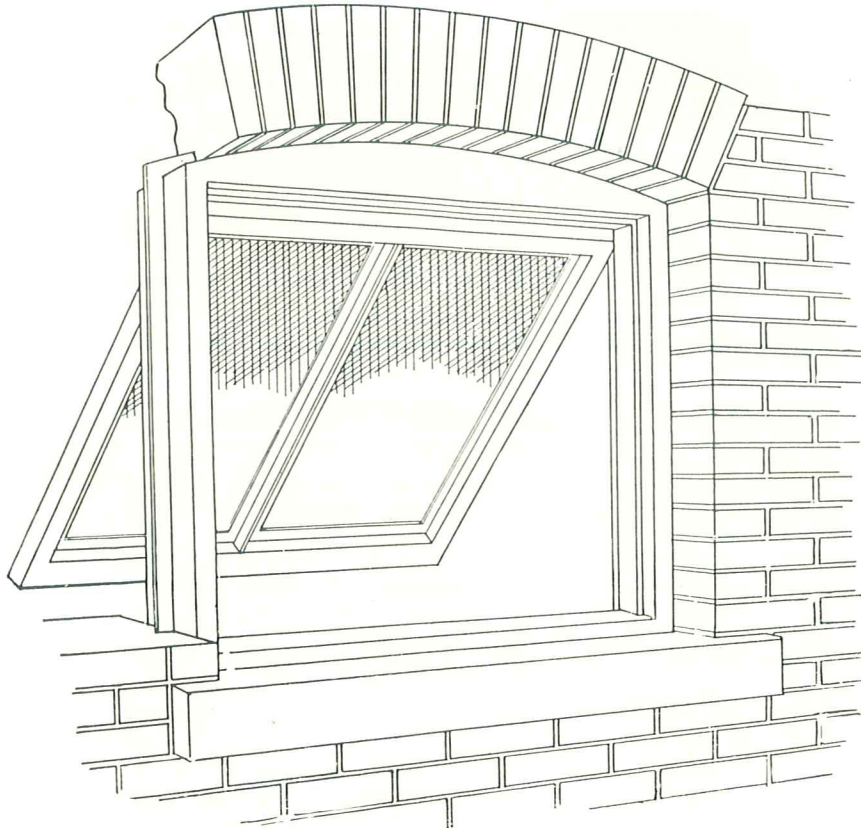


Fig. B1.

Made square head or segmental as shown.

Showing our hinged window, hinged at top to swing in. Frame and sash made of No. 24 gauge iron galvanized, all joints well soldered and riveted and made to close automatically in case of fire. Made single or in mullioned groups.

Shipped with all necessary hardware applied.

In ordering always state if for old or new walls.

Underwriters will not approve or label hinged windows more than 5' wide x 4'6" high or 4'6" wide x 5' high.

Directions for measuring window openings, page 35.

Stremel Standard Single Sash Pivoted Window

UNDERWRITERS' LABELED

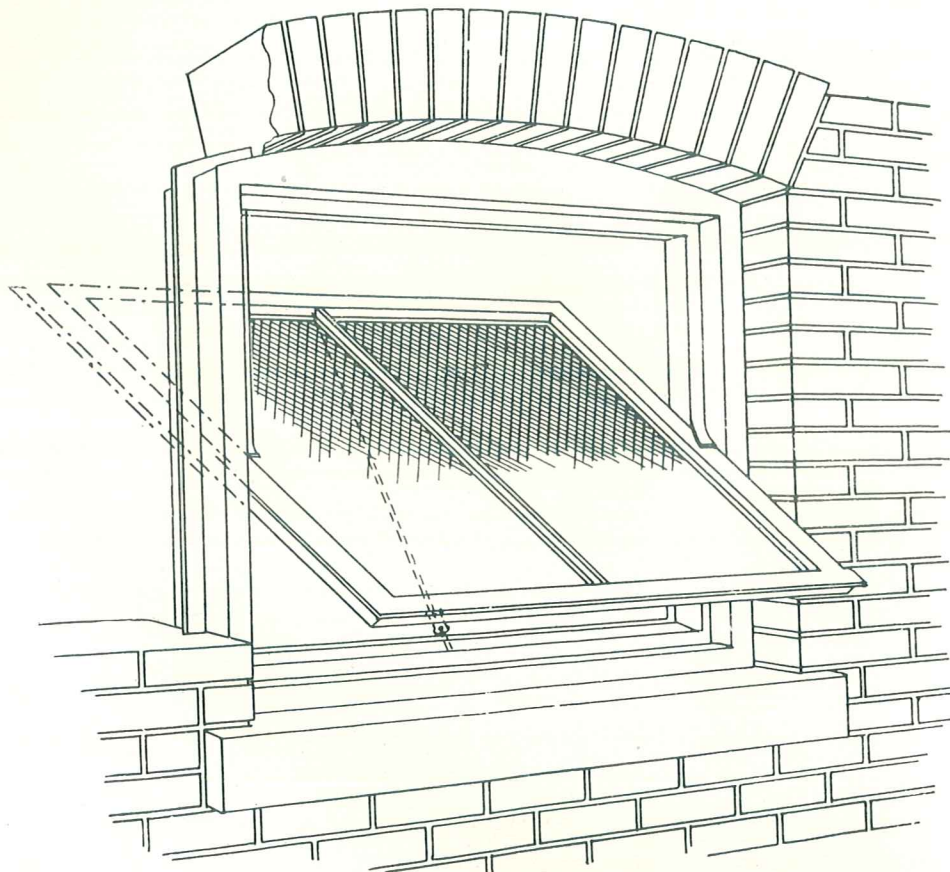


Fig. B2.

Showing Our Single Sash Pivoted Window.

Made single or in mullioned groups.

Sash and frame made of No. 24 gauge iron galvanized, all joints soldered and riveted. The sash is easily reversed from the inside to permit the cleaning of glass on weatherside.

In order to be approved by the Underwriters, windows of this type should not be

more than 5' wide x 4'6" high or more than 4'6" wide x 5' high. Sash closes automatically in case of fire. Shipped with all hardware applied. Square or segmental head.

Always state in ordering if windows are for old or new walls.

Directions for measuring, page 35.

Stremel Standard Double Pivoted Window

UNDERWRITERS' LABELED

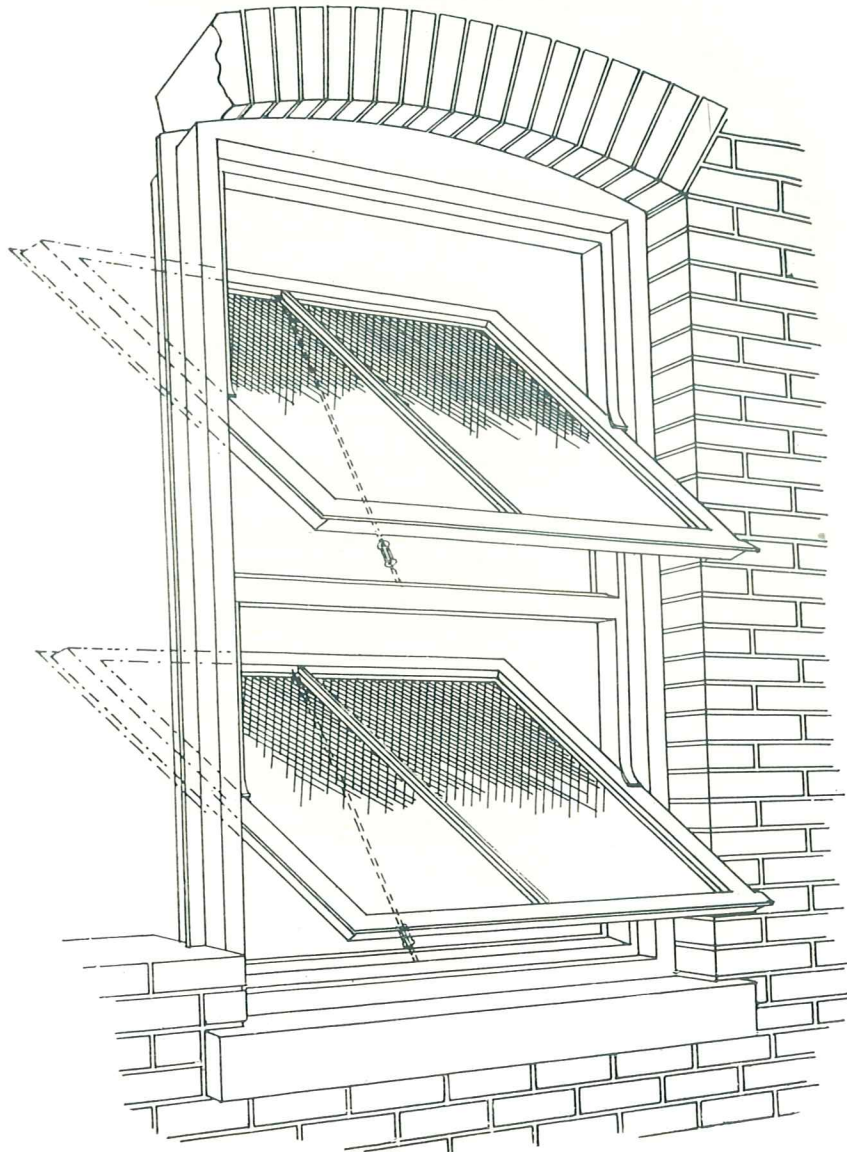


Fig. B3.

Showing Both Sash Pivoted Window.

Sash and frame made of No. 24 gauge iron galvanized, all joints soldered and riveted. Both sash can be reversed from the inside to permit the cleaning of glass on weatherside. Both sash close automatically in case of fire.

Made with square or segmental head and single or in mullioned groups.

Shipped with all hardware applied.

In ordering, always state if for old or new walls.

Directions for measuring, page 35.

Stremel Standard Double Hung Window-Pivoted Transom

UNDERWRITERS' LABELED

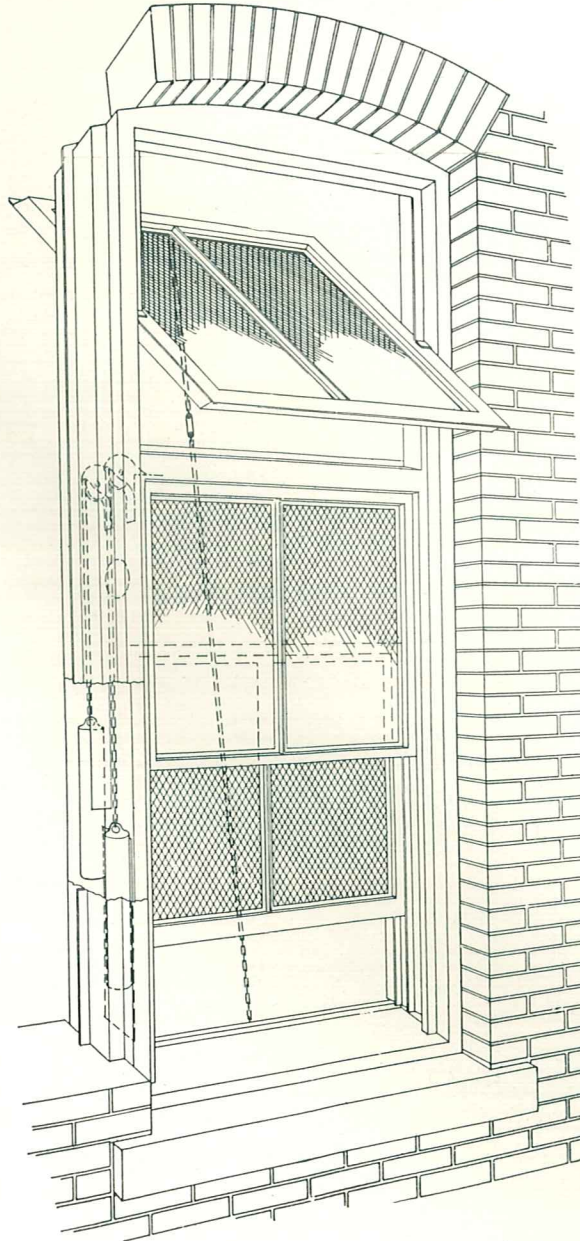


Fig. B4.

Showing our double hung window with pivoted transom. Sash and frame made of No. 24 galvanized iron, transom closes automatically in case of fire and can be reversed from the inside to permit the cleaning of the weatherside of glass.

Windows of this type should not be more than 5'0" wide x 9'0" high to top of opening. Made square or with segmental head and single or in mullioned groups.

Always state in ordering if for old or new walls.

Directions for measuring, page 35.

Stremel Standard Twin Pivoted Window

UNDERWRITERS' LABELED



Fig. B5

Underwriters' Twin Pivoted Windows can be furnished for openings not exceeding 9'0" wide x 5'0" high.

These windows can be furnished with all sash stationary, all sash pivoted, lower sash pivoted and upper sash stationary or as shown with pivoted upper sash and stationary lower sash.

Sash and frame made of No. 24 iron galvanized, joints soldered and riveted, pivoted sash close automatically in case of fire and can be reversed to permit cleaning of the weatherside. All hardware applied before shipping. Made with square or segmental head. State if for old or new walls.

Directions for measuring, page 35.

Stremel Standard Combination Twin Double Hung and Pivoted Windows

UNDERWRITERS' LABELED



Fig. B6.

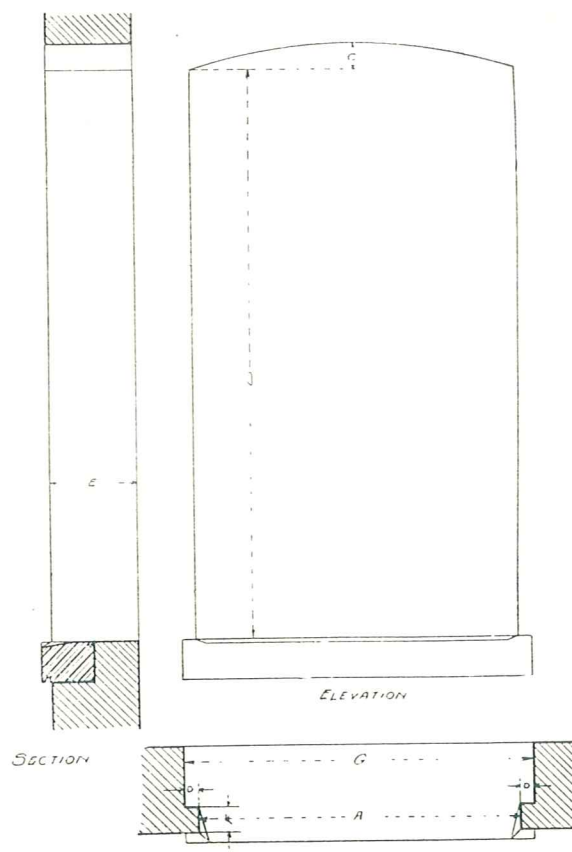
Underwriters' Twin Combination windows can be furnished for openings not exceeding 9'0" wide by 5'0" high.

This type of windows can be furnished with all sash stationary, all sash pivoted, lower sash stationary and upper sash pivoted, or in almost any combination desired, or can be furnished as shown in cut.

Sash and frame made of No. 24 gauge iron galvanized, joints soldered and riveted, pivoted sash close automatically in case of fire. Double hung sash non-automatic. All hardware applied before shipping. Made with square or segmental head. State if for old or new walls.

See directions for measuring, page 35.

Instructions for Measuring Window Openings



A.—Width (outside).
 B.—Height.
 C.—Spring of Arch.

D.—Offset in Brick Jambs.
 E.—Thickness of Wall.
 F.—Reveal.
 G.—Width (Inside).

Always state if windows are for old or new wall, so that we may make the fins or weather-breaks accordingly.

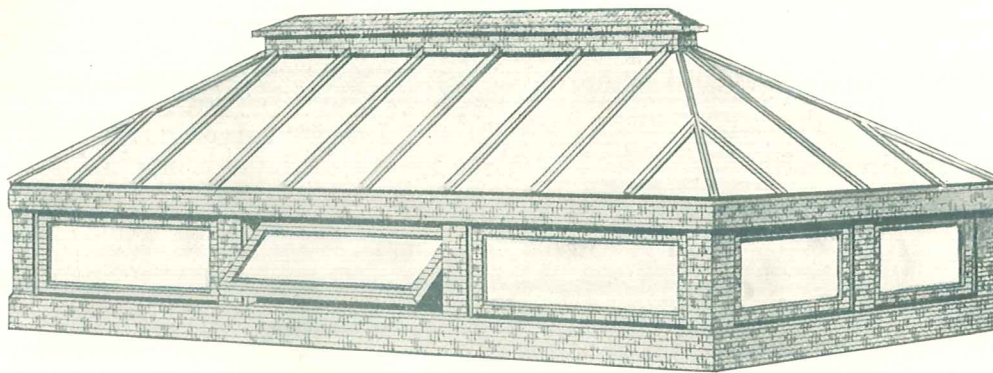
If construction of old wall is different than

shown on above plan, kindly make a sketch or detail of same.

Never use a tape line in measuring openings (unless steel tape is used) ordinary tapes vary.

Galvanized Steel Skylights

Manufacture and
Sale Discontinued



No. 321.

Hipped turret skylight with pivoted side sashes, end sash stationary and with ventilating ridge. The ridge vent may be omitted if desired.

A Word About Skylights

Kindly note that our skylight bars are hollow, thereby combining maximum strength and minimum weight and that they are made with a gutter on both sides to carry off the

drip or condensation that forms on the under side of glass. The gutters on bars carry the drip to a larger gutter and from this it is taken through the skylight frame to the roof.

No charge for crating f. o. b. Minneapolis.

New Price List of Skylights

Crated F. O. B. Minneapolis.

*Manufacture and
Sale Discontinued*

Prices quoted are for skylight frames made of galvanized steel complete, one-quarter inch ribbed wire glass cut to size and shipped separately. Wood curbs and putty not furnished.

Skylights larger than 6'0"x8'0" will be shipped K. D. in sections as large as convenient for transportation.

	Nos. 315-316 Flat	No. 318 Hip	No. 317 Double Pitch
3'0" x 3'0"	\$10.00	\$17.50	\$15.75
3'0" x 4'0"	12.50	18.75	17.00
3'0" x 5'0"	15.00	20.00	18.00
3'0" x 6'0"	17.50	22.50	20.25
4'0" x 4'0"	16.50	21.25	19.25
4'0" x 5'0"	21.25	23.75	21.75
4'0" x 6'0"	22.50	27.50	26.00
4'0" x 8'0"	27.50	38.75	35.00
5'0" x 8'0"	30.00	43.75	39.50
5'0" x 10'0"	35.00	53.75	48.50
6'0" x 8'0"	37.50	50.00	45.00
6'0" x 10'0"	42.50	60.00	54.00
6'0" x 12'0"	48.75	68.75	62.00
6'0" x 14'0"	56.25	80.00	72.00
8'0" x 10'0"	53.75	92.50	83.50
8'0" x 12'0"	62.50	98.75	89.00
8'0" x 14'0"	67.50	115.00	103.50

Prices include one-quarter inch ribbed wire glass.

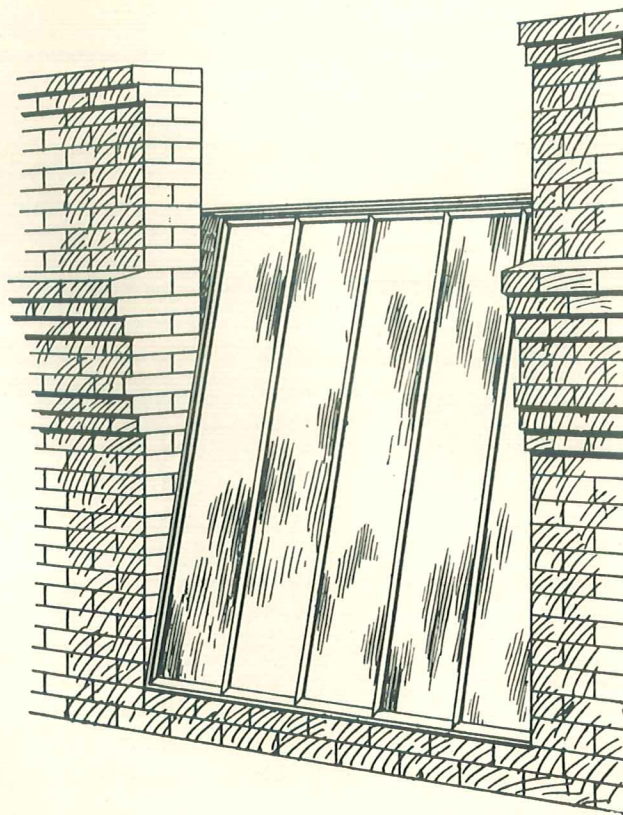
We can furnish skylights of Toncan Metal, American Ingot iron or other special metals. Prices upon application.

Nos. 319—320—321 prices upon application.

Photographers Skylight

SINGLE SLANT.

Manufacture and
Sale Discontinued



No. 31.

Made of galvanized steel with condensation gutters. Should be glazed with rib ground, rough ground or double strength ground glass. Glass cut to size and shipped separately. Skylights wider than 8'0" are shipped in

two sections; can be readily joined at the building.

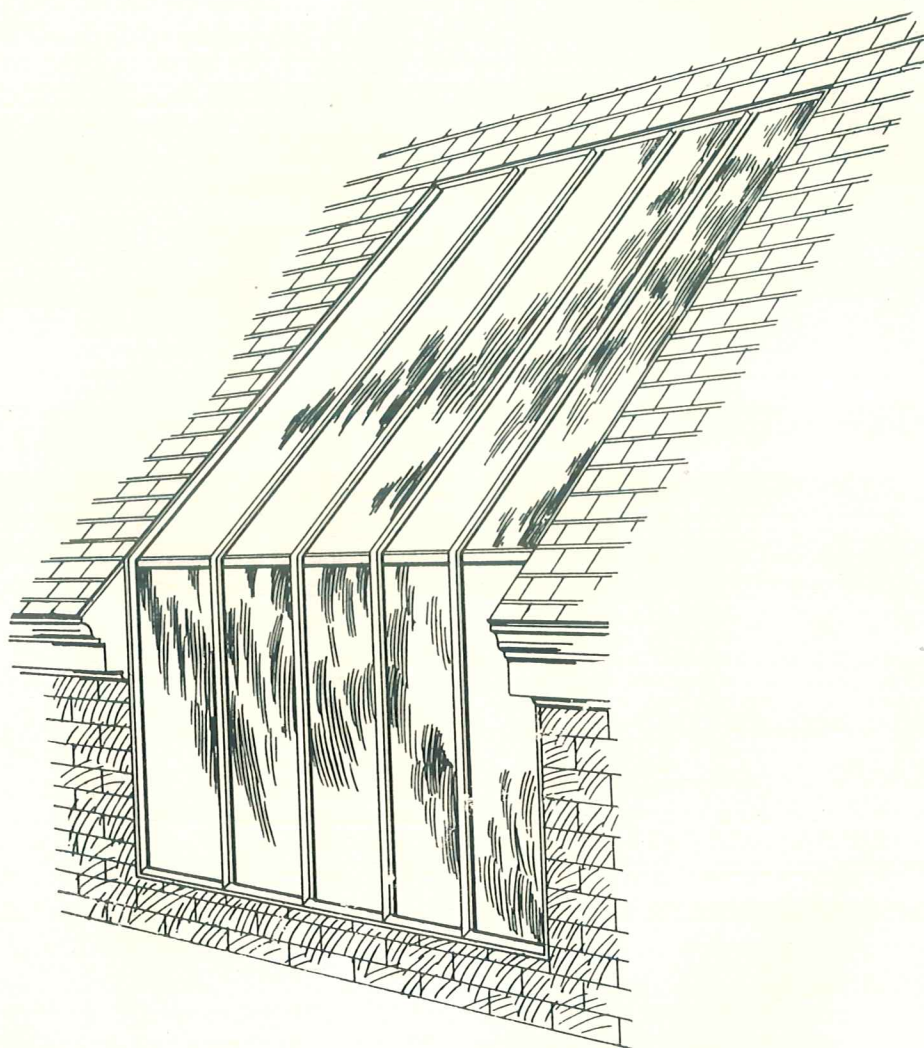
In ordering give width and height and state at what angle or pitch skylight is to be placed.

Prices up on application.

Photographers Skylight

SIDE AND TOP LIGHT.

*Manufacture and
Sale Discontinued*



No. 32.

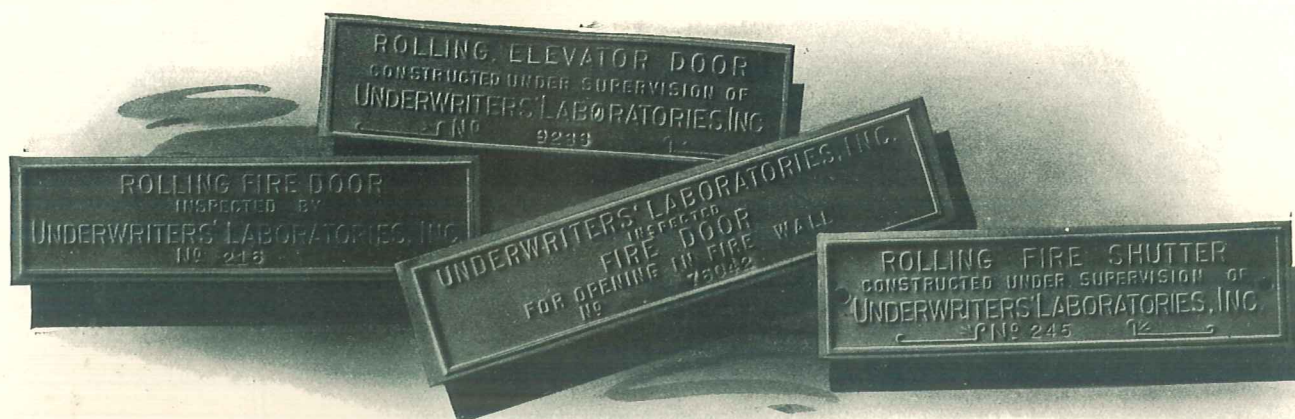
Made of galvanized steel with condensation gutters. Should be glazed with rib ground, rough ground or double strength ground glass. Glass cut to size and shipped separately. Skylights wider than 8'0" are shipped in

two sections. The side light frame is always shipped separate from the top light.

In ordering give width and height of side light and width and height of top light, where possible give the angle or pitch of top light.

Prices up on application.

Northwestern Agents for Kinnear Steel Rolling Doors



UNDERWRITERS' LABELS

Fire Doors and Shutters

Constructed under the supervision of the Underwriters' Laboratories, Inc., and labeled as above.

Important Features—Kinnear fire doors and shutters are specially designed for fire protection.

Details of construction have been carefully developed. The following are some of the important features:

(1) An auxiliary or inner hood is automatically dropped and closes the space between the barrel and outer hood, thereby preventing the passage of flame over the barrel.

(2) Special endlocks closing the concaved ends of slats and preventing the passage of flame around the edge of the curtain.

(3) Fusible washers employed in the construction of grooves which melt and allow the members composing the grooves to expand without buckling.

(4) Non-corrodible metal used for bearings and contact points of the automatic release.

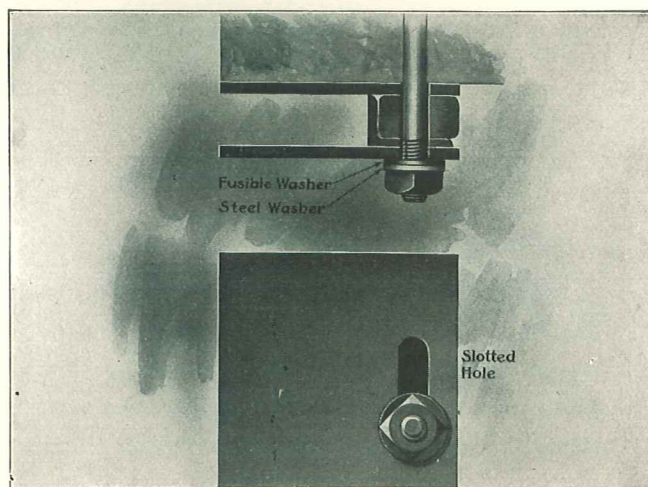
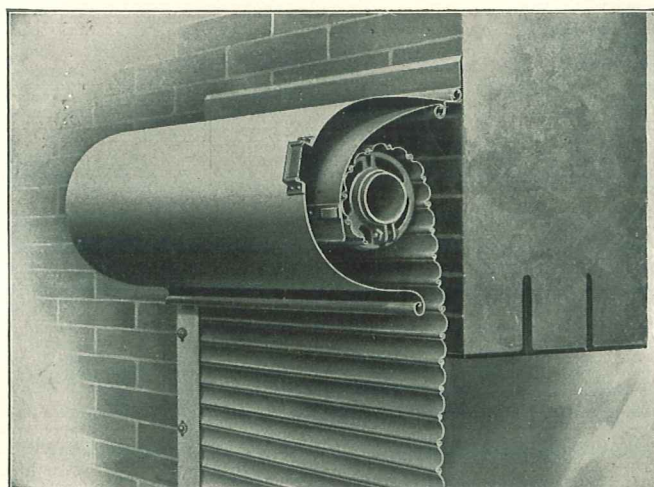
(5) Single line contact bearings in releasing levers.

(6) Provision made for expansion of parts for all temperatures up to 2000° F.

(7) Disposition of fusible links, insuring prompt closing.

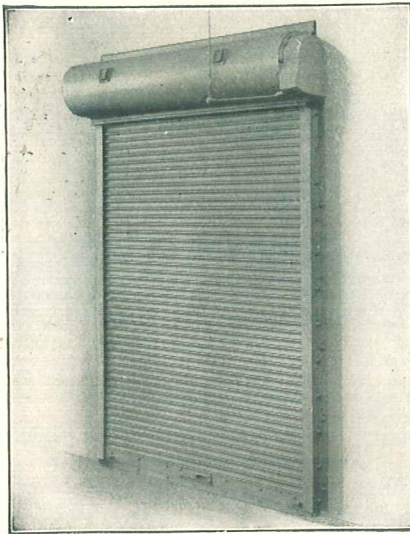
(8) The enclosure of automatic release, protecting it from the weather.

(9) Safety device controlling the speed of curtain in automatic closure.

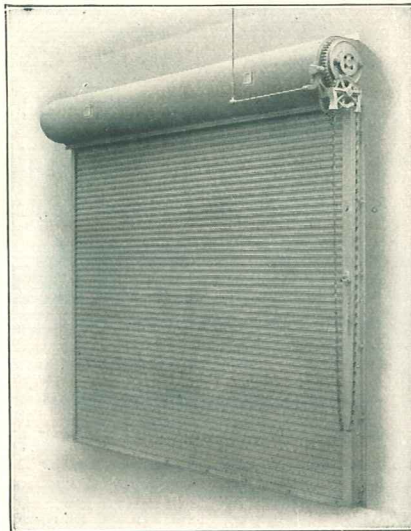


Salient Features of Kinnear Fire Doors and Shutters

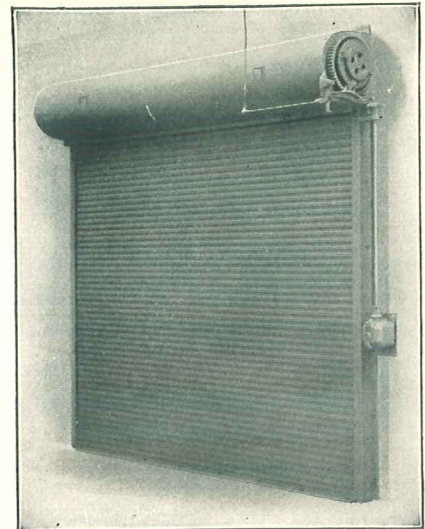
Kinnear Steel Rolling Doors



Manual Operation



Chain Operation



Crank and Shaft Operation

A Few Types of Akbar Construction

Salient Features of Akbar Construction, a Distinctive Kinnear Product

(1) The automatic closing of this type of door is insured by a powerful starting force which diminishes as door is set in motion.

(2) A special safety device is provided on each door which controls drop of door in automatic closure and which eliminates every element of danger, as well as the violent impact common to other types.

(3) Can be opened and reset without difficulty after automatic closure.

(4) Are available for service purposes at all times and will close automatically from any open position.

Akbar doors are available in three methods of operation:

Manual by means of handles in bottom of bar.

Endless chain with reduction gears.

Crank through bevel gears and vertical shaft.

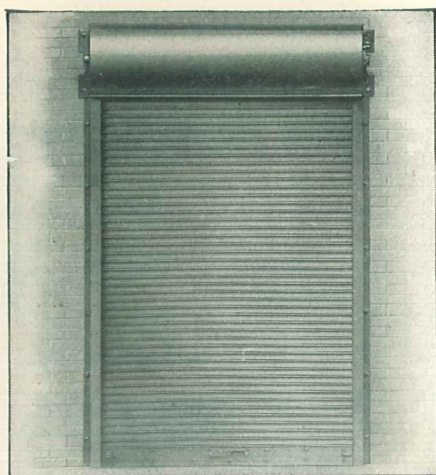
The Underwriters' Laboratories, Inc., label service covers all Akbar constructions for exterior openings not exceeding 100 sq. ft. where width or height does not exceed 12 ft.

On fire walls, room partitions, elevator shafts and corridor openings the limit of area is 80 sq. ft., the width or height not to exceed 12 ft. Doors in excess of these areas are factory inspected by representatives of the Underwriters' Laboratories, Inc., and a certificate is issued which is a guarantee that the doors are constructed according to label requirements with the exception of size.

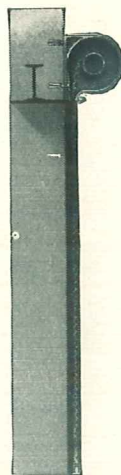
When this service is required it must be indicated with the order.

Kinnear Service Type Steel Rolling Doors, Non-Automatic,

NOT LABELED



Elevation



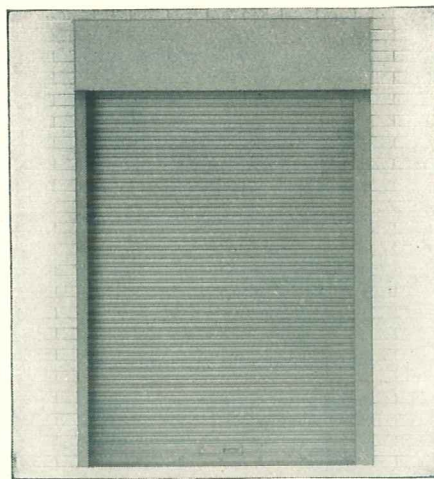
Vertical Section



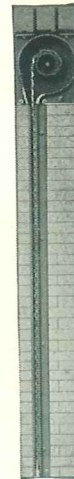
Cross Section

**F.M. 10. Construction**

Mounted on face of wall.
Push-up type, entirely counterbalanced.
Can be opened or closed from either side.
Provided with suitable lock.
Available for openings not in excess of 100 sq. ft.



Elevation



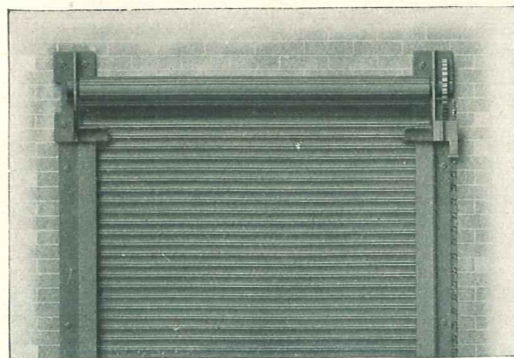
Vertical Section



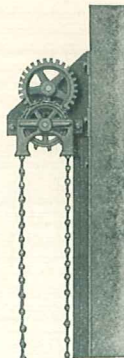
Cross Section

**B.M. 10. Construction**

Mounted in opening.
Can be opened or closed from either side.
Curtain entirely counterbalanced.
Paneled hoods can be provided.



Elevation



End View

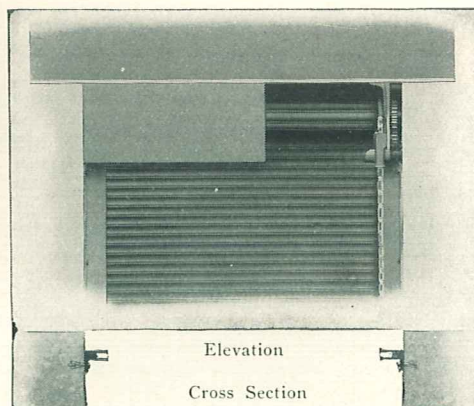


Cross Section

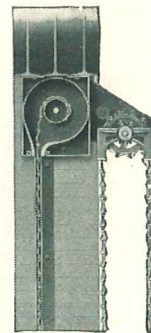
**Construction No. F.H. 20**

Mounted on face of wall; counterbalanced by springs.

Operated by means of endless chain, sprocket and gear.



Elevation



Vertical Section

Cross Section

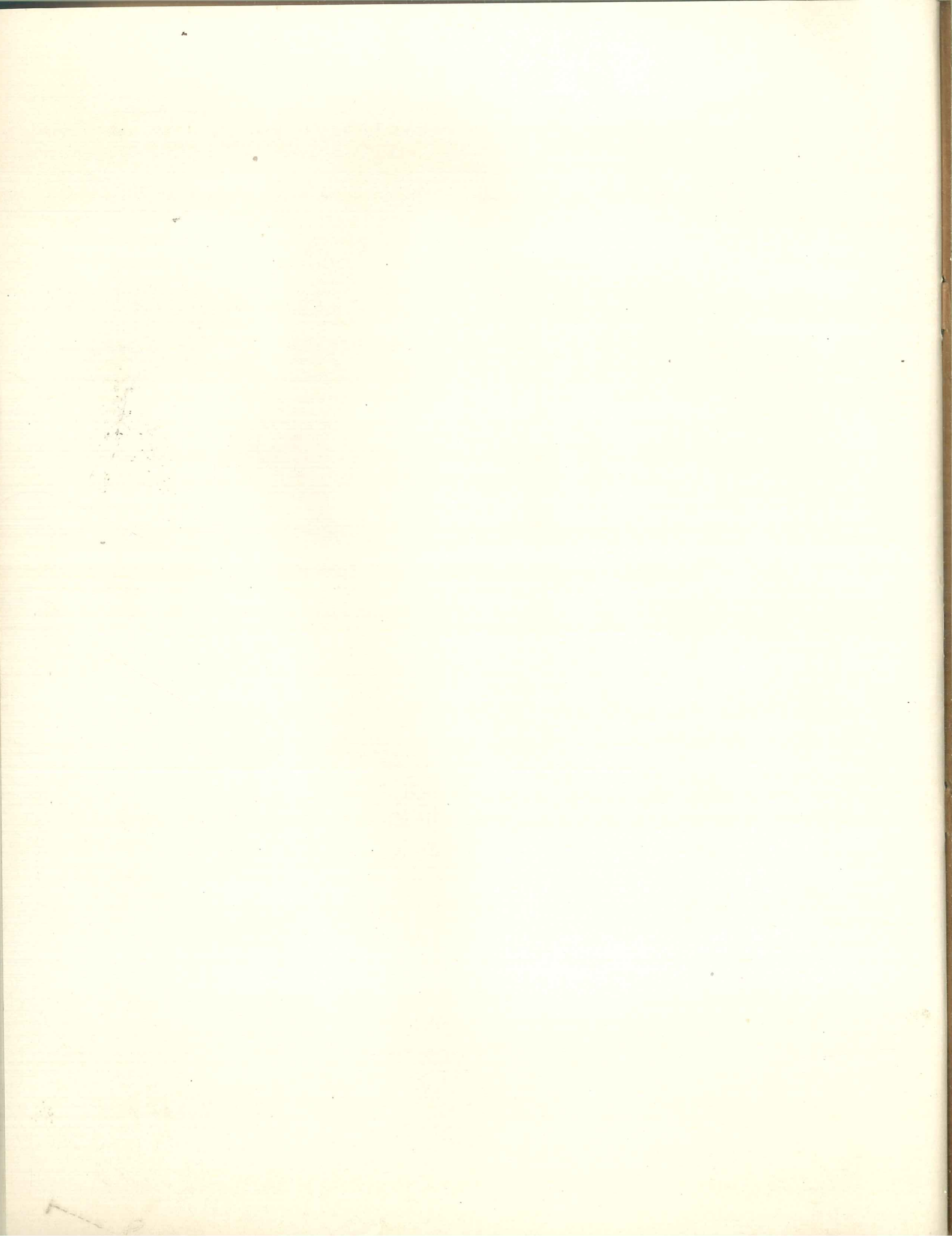
Construction No. B.H. 20

Mounted in opening; counterbalanced by springs.

Operated by means of endless chain, sprocket and gear.

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Fireproof Windows and Doors

STREMEL BROS. MFG. CO.
MINNEAPOLIS, MINNESOTA

**FILE
NO.**

